

USHPA

UNITED STATES HANG GLIDING & PARAGLIDING ASSOCIATION

PILOT

JULY/AUGUST 2018
Volume 48 • Issue 5
\$6.95

RAISING MONTANA

New Pilots Go Up and Over
Yesteryear's Gender Assumptions

Incident Reporting + Competition Flying + Cold Air Advection

Z-ALPS

Vol-Biv Competition

Created specifically for pilots competing in the RedBull X-Alps, the Z-ALPS represents the cutting edge of Ozone Paraglider R&D. Based on the ZENO, this highly advanced design offers open class performance in a lightweight serial class wing.



OZONE's Instagram feed is full of great stories from team pilots and stunning images from their adventures. Follow along and get a daily dose of flying inspiration!
[instagram.com/ozoneparagliders](https://www.instagram.com/ozoneparagliders)



WWW.FLYOZONE.COM

photo: Sebastian Marko pilot: Gaspard Petiot



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The United States Hang Gliding and Paragliding Association Inc. (USHPA) is an air sports organization affiliated with the National Aeronautic Association (NAA), which is the official representative of the Fédération Aéronautique Internationale (FAI), of the world governing body for sport aviation. The NAA, which represents the United States at FAI meetings, has delegated to the USHPA supervision of FAI-related hang gliding and paragliding activities such as record attempts and competition sanctions. The United States Hang Gliding and Paragliding Association, a division of the National Aeronautic Association, is a representative of the Fédération Aéronautique Internationale in the United States.

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WARNING

HANG GLIDING AND PARAGLIDING ARE INHERENTLY DANGEROUS ACTIVITIES. USHPA recommends pilots complete a pilot training program under the direct supervision of a USHPA-certified instructor, using safe equipment suitable for your level of experience. Many of the articles and photographs in the magazine depict advanced maneuvers being performed by experienced, or expert, pilots. These maneuvers should not be attempted without the prerequisite instruction and experience.



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ADVANCE IOTA²

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SUBMISSIONS USHPA PILOT welcomes editorial submissions from our members and readers. All submissions of articles, artwork, photographs and or ideas for articles, artwork and photographs are made pursuant to and are subject to the USHPA Contributor's Agreement, a copy of which can be obtained from the USHPA by emailing the editor at editor@ushpa.org or online at www.ushpa.org. We are always looking great articles, photography and news. Your contributions are appreciated.

ADVERTISING All advertising is subject to the USHPA Advertising Policy, a copy of which may be obtained from the USHPA by emailing advertising@ushpa.org.

NICK GREECE ◀ PREFLIGHT

Free flight is the greatest game of "choose your own adventure" ever conceived. Our free flight "stories" fit the Edward Packard model perfectly, which fascinated many of us as children. In these teenage-oriented books, the protagonist faces two or three options, each of which leads to more options and, finally, to one of many endings, depending on one's choices. Similar to the books, when we are flying without an engine, we are presented with a variety of choices, complicated by the unpredictability of the outcome of our action. But this unpredictability can, in fact, be minimized with repeated practice and exposure to the decisions made during a flight.

The saying "it's better to be lucky than good," is questionable when we observe that those who are good, more often get lucky. I would say that's because they have narrowed down their results by choosing successful routes in their story, over years of flying, thereby eliminating unexpected twists or trick endings. Due to the ever changing and evolving environmental factor in which we operate, an unexpected adventure always awaits us, but isn't that what keeps us coming back?

The July/August issue kicks off with a call for regional directors. USHPA is a volunteer led organization. This is your chance to run, or nominate, someone who wants to make a difference in free-flight in the US.

Martin Palmaz is back with his monthly installment about USHPA, this time explaining membership benefits. USHPA is making a concerted effort to continuously add

benefits to membership at no cost.

Sara Weaver gives us her first, of many to come, pieces to be featured in the USHPA magazine about her start in hang gliding, from Kitty Hawk to competing. We're excited to have Sara contributing frequent reports about life under wing.

Another Kitty Hawk alum, Tom Webster, reports on a group from the Colorado College recreation department who learned to fly at the Point of the Mountain during a spring break.

Calef Letorney is back with a critical piece on our need to change our culture for accident reporting in order to predict and prevent future accidents, while Jeff Shapiro reports from the thriving flying scene in Missoula, Montana, as well as what makes a great pilot.

Honza Remanek drops by to begin a new weather series based on his famous Cross Country Magazine works, and CJ Sturtevant, the hardest working woman in Free Flight, is back with a piece on Zac Majors' win and the great event held at Quest Air in Florida.

Dennis Pagen chips in a piece on advanced ridge soaring techniques.

These are the days, my friends. Make sure whatever adventure you choose makes you happy and keeps you safe!

Nick

JONATHAN BYERS ◀ COVER

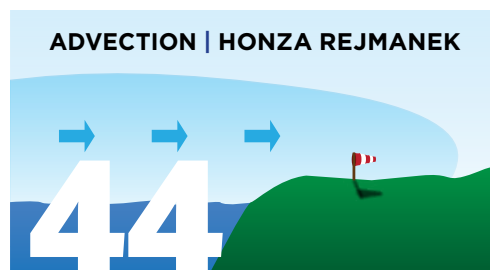
Kara Shapiro pulling up in Missoula, Montana.

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SARA WEAVER



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Montana on the Rise

JEFF SHAPIRO



COMPETITION FLYING

Extra Credit in Your Favorite Field of Study

C.J. STURTEVANT

BRIEFINGS

USHPA Board Meetings

Fall Oct 18-20, 2018

Board of Directors Meeting
+ Annual Membership Meeting

at the Hilton
Melbourne Beach Oceanfront
Melbourne Beach, Florida

Spring March 7-10, 2019

Board of Directors Meeting
+ USHPA Awards Banquet

at the American
Mountaineering Center
Golden, Colorado

*Visit the website
for further details and
the most up-to-date information
ushpa.org/boardmeeting*

GIN GLIDERS FUSE 2 According to Gin Gliders, the Fuse 2 tandem glider retains all the characteristics of its successful predecessor, the Fuse, while offering improvements in some key areas including easier take-off (comes up smoothly, even in strong winds), reduced brake pressure, more responsive turning, and lighter weight.

As with the Fuse, the trim settings and wide weight range (120kg to 220kg) on the Fuse 2 (41 size certified as EN B) add versatility for light pilots and passengers. The wing can also be flown solo. It will be available in three colors: Mojito (green), Berry (red) and Lapis (blue). The 37 size has a weight range from 90-175kg and should receive certification in early summer. Demos are available through Super Fly.

WOODY VALLEY X-ALPS GTO LIGHT ▼

Woody Valley has put the finishing touches on the X-Alps GTO Light, and the harness is available through your local Woody Valley dealer and Eagle Paragliding. Josh Cohn gave Woody Valley a laundry list of suggestions for a lightweight race harness, and they followed his suggestions. The harness weighs in at 3kg. There is no seat board, but the stiff foam and batten support make this harness feel like it has one. Woody Valley designed a lightweight rucksack and a concertina bag that can also be purchased separately for your lightweight kit. The harness comes in four sizes, and retails for \$1695. Woody Valley has solely focused on constructing the paragliding and hang gliding free-flight harnesses since 1998. More info at www.eagleparagliding.com



ADVANCE X ▲ There is a new light-weight high-end B glider from Advance in Switzerland designed with cross-country, thermaling and hike/fly all equally in mind. It is named the Greek letter XI (pronounced “sigh”). It is 3.4 kg, 27gm Porcher Sport Skytex, and Skytex 32gm with Edelrid Magix Pro lines. Inspired by the Omega X Alps (EN D) and the Pi2 (Lightweight EN A), the XI will be available in five sizes this summer through Super Fly.



ADVANCE COMPRESSBAG TUBE ▲

The COMPRESSBAG TUBE combines the advantages of a normal concertina bag with those of an Advance COMPRESSBAG. Cell-on-cell packing remains simple, and profile shape and glider life is always protected. After closing and folding the Tube, the bag is compressed by a long zipper. The result: a neatly packed paraglider—with a smaller volume than when packed in a regular inner bag. Available through Super Fly in the USA.



NEW INSTRUCTOR MANUAL After years of watching, learning, and spending time with highly competent instructors in both free flight and powered flight, some unsavory observations emerged. Namely, that training is dangerous. For motoring, training has proven to be among the top three causes of fatality, especially since auto-inflating devices have all but eliminated drowning. In

ect mostly because it involved so many people, interviews, filming sessions, and earning my paraglider instructor rating. I used the apprenticeship as an opportunity to see and experience as much as I could, including working with real students whenever possible, even after the clinic, to improve my perspective. It was rewarding and surprisingly difficult to do well. I soon learned that becoming

a skilled instructor is much like becoming a skilled pilot—it doesn't happen in a clinic. And it doesn't happen quickly.

Focus was on sharing how successful instructors succeed, how students learn, how they get hurt, how to minimize risk, what it takes to be effective, and what it takes to thrive in the business.

This isn't for students seeking a deeper understanding—it's for those wanting to *teach*. There is a lot of overlap between free flight and motoring because handling a paraglider is the same for both (although there are important differences). We also cover transition training—how instructors will

encounter students of one discipline or flying machine wanting to transition to another.

The last part also includes a highly condensed version of the FAA's Aviation Instructor's Handbook, formerly known as the FOI (Fundamentals of Instruction). Most examples have been converted into something that makes sense for us, with no space wasted on mechanics or airline cockpits.

The book is intended to supplement a thorough instructor clinic and the hands-on apprentice work that follows. No clinic can cover everything, and this book will help fill in some blanks. It provides tips and techniques from some of our most experienced and successful teachers, while offering a glimpse into

what's involved, including for part-time instructors. The focus is on teaching, but it has a lot about running a school and handling larger classes.

Bill Heaner and Chris Santacroce figure in prominently for the free-flight portion, and Eric Dufour for the motors, but I had help from *many* others.

With a casual writing style I hope to make it digestible and even fun. The book is 400 pages, hardcover, and has a complete index. It's available at the USHPA store at www.USHPA.org

NAA APPLICATION PROCESS CHANGES

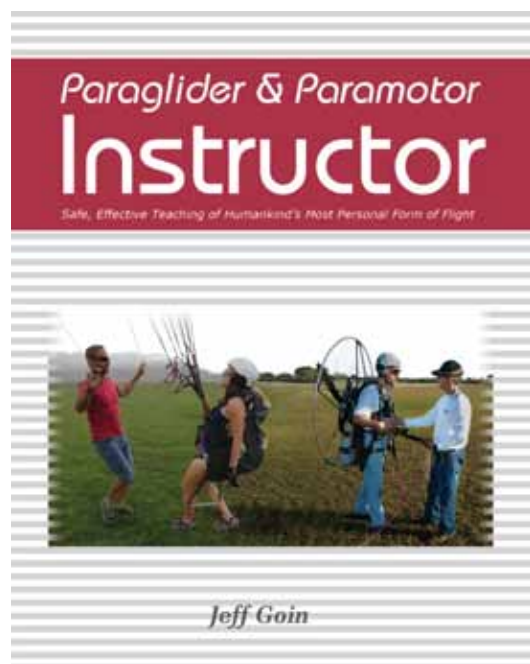
In March 2018, NAA implemented the following changes to the Membership and FAI Sporting License application process:

1. All Membership and FAI Sporting Licenses applications must be submitted online. Hard copy applications will no longer be accepted. To apply for or renew a Membership and/or FAI Sporting License, go to <https://naa.aero/membership/membership-application>.

2. The processing time for all FAI Sporting License applications has been reduced to five business days. Applications submitted less than five business days prior to a record attempt or competition may not be processed in time.

3. NAA will no longer mail hard-copy Membership Cards and/or FAI Sporting Licenses. Instead, upon approval of the application, an email will be sent containing the appropriate credentials attached. Members can then print copies of their credentials as they see fit.

NAA hopes that these changes will streamline and enhance the Membership and FAI Sporting License application process. We look forward to serving you!



free flight, the risk comes later, after a student has set out alone. But I also noticed that some instructors have better records for student injuries both during training and afterwards.

Instruction looks easy—show someone how it's done and get them to repeat, right? Then why so many student injuries? We can do better. We must do better. After two training fatalities in 2015, a switch flipped in my head—it was time to do something. We decided to start working on a book that would offer current and aspiring instructors the breadth of tools and techniques that have already been developed. *Paraglider and Paramotor Instructor* was born.

It became our most ambitious proj-

INCIDENTS

Analysis by
CHRIS SANTACROCE

AIRS Accident/Incident Reporting System

If you have had a close call, logged a disastrous flight, or have been injured while hang gliding or paragliding, be sure to file a **confidential** accident/incident report.

Together we can expand our knowledge of where, when and why flights go wrong.

File at **airs.ushpa.aero**

You could be saving lives.

TOP LANDING A P3 pilot flying a B-level paraglider was negotiating a top landing at a coastal site. Upon overshooting, he opted for a secondary top-landing location adjacent to the original target. As he proceeded, he was met with rotor and a deflation, leaving him with a spinal compression injury that did not require surgery.

The pilot agreed that it would have been advisable for him to abandon the approach and try again or not at all. He also commented that a more studious evaluation of the wind and terrain would have revealed the rotor areas and potential rotor areas.

There is a mantra in aviation: "Go around often and early." To go around is to abort the landing and come back around for another try. It works for airplane pilots, because they can apply power and try again, but it also works for hang gliders and paragliders in the top-landing environment.

Some say that a series of "missed approaches" is the best way to warm up for an actual top land-

technique specific to the site and conditions. Wait until you have seen a few nicely executed ones before trying it yourself. Landing at the bottom is always a great option.

LAND SMART A P2 pilot on a cross-country flight spotted a glider in a small field. He also noticed a large field that would be easy to land in. As he landed, he chose to land with the other pilot. On approach, he was faced with obstacles on all sides and tricky conditions. He over-braked at one point when he was very low, causing a strong turn toward the ground, and suffered a broken ankle.

Throughout your flying career, you will be faced with important choices. To put this in perspective, the color of the car you choose to drive is not a life choice, but the landing zone you choose on a cross-country flight is.

It goes without saying that we need to choose the largest fields with the cleanest airflow and the fewest obstacles, as they are theoretically the safest. Less obvious is

"To go around is to abort the landing and come back around for another try. It works for airplane pilots, because they can apply power and try again, but it also works for hang gliders and paragliders in the top-landing environment."

ing, especially at a new location or in new conditions. Just fly by as if you were going to land, and then fly past. Wait until it looks perfect. Having an instructor teach you how to top land via radio can be great, but we should all study top-landing

the idea that these landing places might be inconvenient. They might be muddy, away from the main road, a longer walk out, or dirtier, and they can sometimes be logistically quite poor. Pilots have to make deals with themselves long

in advance of the actual flight. Just as drivers know that driving into a ditch is far less disastrous than getting in a head-on collision, pilots learn things like landing in a big muddy field is safer than landing in a small soccer field surrounded by power lines. Make a deal with yourself now that you will choose the muddy field. Land smart, land inconvenient, land safe.


WINDS ALOFT A P3 pilot launched on a B-level glider from a mountain site into very strong wind. Wind throughout the area was reported to be very strong as well. It's pos-

sible that previous pilots had flown this site in such wind, but this pilot drifted into a rotor area where the rotor effect was magnified by the windy condition.

He suffered a series of deflations and then crashed and suffered a pelvic fracture and high-level concussion.

Before the days of the Internet, pilots would call flight service to get winds aloft. Bringing the winds aloft to the lesson was the student's job. Winds aloft, along with real-time weather and wind reports, are still essential to our launch/ no launch decisions. None of us ever

wants to be caught flying in the mountains in the face of a strong forecast or real-time winds. There are enough variables in our three-dimensional navigation, especially since there is no pause button. We don't need the conditions to be against us. This same report could have hinged on an uber-strong thermal prediction. The same cause and effect would prevail, and the lessons would be the same.

There are few tangibles in foot-launched flying that can be included in the launch/no-launch algorithm. Lean hard on the few that do exist. 

Call For USHPA Regional Director Nominations

DIRECTORS UP FOR RE-ELECTION IN 2018

Region 1 (1 seat)

AK, OR, WA

Rich Hass is retiring from the board.

Region 2 (1 seat)

North CA, NV

Jugdeep Aggarwal.

Region 3 (1 seat)

South CA, HI

Dan DeWeese is retiring from the board.

Region 4 (1 seat)

AZ, CO, UT, NM

Bill Belcourt is retiring from the board.

Region 5

ID, MT, WY, Canada

No election this year, directors serve two-year terms.

Region 6/11

AR, KS, MO, NE, OK, LA, TX

International

No election this year.

Region 7 (1 seat)

IL, IN, IA, MI, MN, ND, SD, WI

Doyle Johnson.

Region 8 (1 seat)

NH, CT, ME, MA, RI, VT

Calef Letorney

Region 9 (1 seat)

DC, DE, KY, MD, OH, PA, VA, WV

Daniel Lukaszewicz

Region 10 (1 seat)

AL, FL, GA, MS, NC

SC, TN, VI, PR

Steve Kroop

Region 12 (1 seat)

NJ, NY

Paul Voight

DO YOU KNOW SOMEONE who is passionate about hang gliding and paragliding, has a desire to help with the protection and growth of free-flight aviation, can both create goals to achieve their ideas and then follow through on them? Then please nominate them for the Board of Directors at USHPA! You may also nominate yourself. Please only nominate people in your region who are interested in taking on the job. (You do not need to re-nominate current directors).

Regional Directors are the cornerstone of the US Hang Gliding and Paragliding Association. They are the mouthpiece of the members that they represent and for the sports of hang gliding & paragliding. The USHPA wants and needs participation in this process. Regional Directors must be able to travel to board meetings twice yearly (some expenses reimbursed), interact with committees, participate in open discussion forums, and represent members in the region.

To become a regional director:

1. By August 11 - Nominate yourself (or another) by completing the online Regional Director Nomination Form.

2. By September 1 - Submit a bio about yourself for the upcoming election.

3. By September 1 - Submit a "VOTE FOR ME" statement for the November election issue of the magazine.

4. Starting November 1 - VOTE! Elections begin November 1. On December 15th, Regional Director votes will be tallied via online ballots from active USHPA members of each region. Election results will be announced on the USHPA website, www.ushpa.aero.

ASSOCIATION

Know Your Member Benefits

by **MARTIN PALMAZ**, Executive Director



DEAR MEMBERSHIP: You're certainly familiar with the obvious benefits of USHPA membership — the magazine, the insurance, and the training program — and you're aware that USHPA's operational scope includes

a variety of objectives undertaken on the membership's behalf, such as advocacy, IT infrastructure, governance, policy and beyond. But did you know that some of your USHPA membership benefits reap discounts that can quickly add up to save you the cost of your membership? If you're like most USHPA members, you probably don't.

We're trying to change that by increasing awareness around our multiple USHPA Member Partner Benefits programs. You may have seen an email recently listing each of them off. If you've gotten curious about the new website, you may also have come across them while browsing the new website.

If this is new information for you,

however, I'm sure it'll be a welcome surprise.

EQUIPMENT DISCOUNTS

First and foremost, there's ExpertVoice. Through USHPA's partnership with the ExpertVoice marketing network, our Intermediate, Advanced, Master and Instructor membership (H3/P3 and above) can access significant savings on outdoor gear across a wide range of categories. The "pro-deals" knock 30% to 60% off the retail prices of the most recognizable brands, and cover everything from camping equipment to sunglasses to bicycles and beyond. You can easily save the cost of your membership simply through buying the gear



HEADGEAR



T-SHIRTS



JACKETS



TECHNICAL



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GEAR



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CHARMS
for necklaces
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& earrings



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August 5th - 11th

<http://airtribune.com/2018bsnats>



you would normally buy over the course of a year. My pilot friends and I use this membership benefit often and appreciate the savings.

USHPA has worked out a separate partner program with Columbia Sportswear, whereby USHPA members save 15% off anything purchased directly through Columbia's website.

TRAVEL DISCOUNTS

USHPA members love new adventures, so we've been working to arrange some useful travel-oriented partner benefits. Active USHPA members can now save up to 40% on stays at Extended Stay America hotels. (Example: There's one just a couple of exits away from the Point of the Mountain.)

We also have discount partnerships with the National and Alamo car rental companies. Discounts vary by availability but can be substantial, so they're worth checking out for your next trip.

EXTRACTION/REPATRIATION SERVICES

Extraction and repatriation packages can increase your comfort level traveling and flying abroad—but only after you've figured out which one to purchase. They require diligent research and case-specific evaluation.

That said, USHPA members may currently access reduced annual membership rates for two extraction/repatriation services, Medjet Assist and GEOS Medivac. We're currently evaluating the Global Rescue package for potential inclusion in the near future (especially since GEOS Medivac's service charges more for policies that include coverage for hang gliding or paragliding accidents). Watch this space for further developments.

These perks may be relatively minor in the big-picture framework of what USHPA seeks to accomplish. In my next article, I'll outline the big stuff that we're working on — the governance-and-policy initiatives that our committees and board volunteers work so

hard to develop. That said, these discount partnerships represent a clear value to our members and we want to raise awareness so you can take full advantage of your USHPA membership benefits.

We constantly seek meaningful and beneficial partnerships to add to this list. When we become aware of new opportunities that would directly benefit our membership, we actively work toward establishing a relationship that benefits our members. Especially as we look forward to a smoother, post-transition era, you can expect this list to continue to grow — and, lest I forget, we're always open to suggestions.

To access the benefits I've described above, visit <https://www.usHPA.org/page/partner-member-benefits>.

Thanks, as always, for your membership and your support. I'm looking forward to sharing more behind-the-scenes benefits in my next article.

Enjoy the skies,

Martin Palmaz

Executive Director, USHPA 



My Adventure in Hang Gliding

by SARA WEAVER

How my brain ever chose to make me a hang glider pilot I will never understand, but this is my genesis story. I started young, a scrawny 19-year-old girl wrapping up my freshman year of college in Indiana. Joe Bedinghaus—friend from high school and fellow Dunie—texted me, “Do you want to fly hang gliders? You can do it all summer.” I snapped shut my flip phone and walked to class, oblivious that my entire life had changed in that instant.

I didn’t even know what a hang glider was. I looked up pictures and scrolled the Kitty Hawks Kites Hang Gliding School website. Apparently, the school snagged up youngsters who have never flown, hooked them into ‘70s style Rogallo wings called Eaglets, and flew them off the side of a coastal North Carolina sand dune.

As they learned to fly hang gliders, these pilots also learned to teach. The work was supposed to be hard. From the website: “Dear Hang Gliding Instructor Applicant, The work is

physically demanding. The typical work day is about seven hours long, most of which will be spent teaching out on the dune. During the summer months you will be expected to run down the training hill with students and carry the glider back up. Temperatures in the summer average in the nineties and the humidity is generally high. Remember that you are in a teaching situation. This requires that you always maintain your responsibilities as an instructor, despite sometimes exhausting condi-

“I saved up money by donating blood plasma and headed to a flight park in Florida to earn my aerotow solo during spring break.”

tions. You will leave here in probably the best shape of your life.”

Curiosity: piqued. I had just discovered rock climbing and could see the physical change reflected in the mirror. My skinny arms were sprouting tiny muscles and I felt strong. A summer job flying these crazy delta wings and being in the best shape of my life sounded like a win-win situation.

Still, there was one problem: I’m a nerd. It was April, and I was busily searching for my first summer internship in the environmental field. I was planning to reverse climate change, solve the oil crisis and sustainably feed the entire planet. I didn’t have the time to go hang gliding at the beach.

But four days later, I was on the phone with the Kitty Hawk Hang Gliding School manager. I hadn’t been sleeping because I was too excited. Picking up another adventure sport suddenly seemed much more interesting than fixing the world’s problems, and I was all in.

LEARNING TO FLY

That first summer on the Outer Banks can never be properly described in words. It changed everything I was as a person, it built my foundation as a pilot, it destroyed and restored my body and taught me the definition of endurance. There I learned to talk to strangers, to somehow make them feel at ease while flying 20 feet above the ground.

I learned what it meant to be part of a community of people whose sole purpose was to fly. We chased the hype that everyone was after and only few achieve. We spent night after night roaming the island and searching for the next kick... ocean kayaking, biking, skateboarding, kiteboarding, surfing. But only until we could fly again. We did what we needed to survive, picking up shifts at the school, snagging second jobs, living on Mountain Dew and psyche.

When we weren’t teaching on the dunes, we carpooled to Currituck Airport and took tandem hang gliding flights with the more experienced instructors. That’s where the bug really bit me—2000 feet above the ground. If there was any question of my ever



ABOVE One of my first tandem training flights at Currituck Airport with Christophe Thevenot in 2013. **OPPOSITE** Returning to Kitty Hawk Kites for the 2018 Hang Gliding Spectacular after being away for two years | photo by Jax Quinn.



leaving the sport, it faded away like a stone thrown in the ocean.

I had earned my Hang 1 certification earlier in the summer, endured the grueling (but insanely fun) mornings of June training and finally secured the coveted instructor shirt. As the season's halfway point passed, groups of us headed to Morningside Flight Park in New Hampshire to earn our Hang 2s. It was mountain time!

We had graduated from flying fluttery Eaglets to sleeked-out wings called Falcons. Each morning, we flew while conditions were smooth and slowly worked our way up the training hill: 50 feet, 75 feet, 100 feet, 150 feet, 250 feet. Launch launch launch, land land land. We hit our goals, messed up, got angry, got tired, got stoked, succeeded and finally received the all-clear to launch off the 400-foot mountain.

The feeling can only be shared in flight, but my heart was both calm and wild. I did my first 360-degree turns before landing more than 60 seconds after launch, knowing that flights could only get longer after this point. By the end of the week, my fellow dune instructors and I were Hang 2 pilots with eyes like fire and a renewed passion to go hard and fly often.

We returned to the dunes more knowledgeable and more aware of

weather patterns and glider functionality, understanding that there was so much more to learn. As the summer came to an end, we returned to where we came from. I went back to school with 6-pack abs and a volcanic metabolism that would swallow anything in its path. My rock climber friends rolled their eyes whenever I started talking about hang gliding again. I was totally hooked.

EARNING MY AEROTOW SOLO

I spent my sophomore year of college focused on climbing and school. A couple months into classes, I noticed that I stopped talking about hang gliding to friends who couldn't relate, and I wasn't constantly staring up at the clouds. As the long winter progressed, I realized that I had been away from the sport for far too long and began plotting my return. I saved up money by donating blood plasma and headed to a flight park in Florida to earn my aerotow solo during spring break.

The week was magical, but challenging. I would wake up every morning to train in the tandem glider. Halfway through the week I was itching to solo, but my instructor, Kitty Hawk legend Jonny Thompson, held me back. I was frustrated about wrestling with the massive tandem glider and it was starting to show. Everyone made flying seem so relaxing and easy

and I didn't understand why I wasn't feeling that way. My shoulders were sore and the early mornings were taking it out of me, but this was what I came for.

Finally the day arrived. It was eight in the morning and the fog had just lifted. After a warm-up tandem flight, Jonny gave me the go-ahead and everything clicked into place as I left the ground totally alone. Hang gliding *was* easy. The glider I was flying fit me; it was much smaller than the bulky tandem. Friend and mentor Jim Prahl was in the tow plane, and he sent me to cloudbase. My teeth were cold from smiling and my lips were chapped from squealing in happiness mid-air. I was finally a true hang glider pilot.

BACK TO THE DUNES

Although I returned to Kitty Hawk for two more summers, it was never quite like the first. My second summer was stunted by a five-week wildlife course I was taking in the Upper Peninsula of Michigan. After that, I spent my days working ground crew at Currituck and flying more often than working. Jonny, Andy and Too-Tall: Thank you for letting me do that. I know you could have used my help on the ground but instead you let me collect flights like candy on Halloween. To finish out the summer, we took another mountain trip to Morningside, solidifying those



ABOVE, L TO R Teaching a friend from college to fly at Kitty Hawk Kites. One of my first solo flights high above the Florida landscape in 2014. Working with sea turtles in coastal Georgia | photo Joe Pfaller. Soaring above Currituck Airport during my second summer with Kitty Hawk Kites. Elated after landing at goal after a 4 hour and 45 minute flight during the Green Swamp Sport Klassic in 2017 | photo by Max Kotchouro.

months as another stepping stone on my journey as a pilot. I can only wish I had more time there.

Another school year was spent in Indiana, although I was able to make it down south for a quick autumn

gliding. And then I didn't fly again until the next summer.

My third Kitty Hawk season was mostly spent subbing in for instructors on the dunes, paddleboarding in the sound and lounging on the beach.

I wanted to do something with the degree that I had worked so hard to earn, so I began applying to sea-turtle technician jobs around the world. I got one on Sapelo Island in coastal Georgia, and spent my summer

"I went back to school with 6-pack abs and a volcanic metabolism that would swallow anything in its path."

flying trip in northern Georgia. They let me borrow a Falcon and an ill-fitting harness with a parachute and launched me off the mountain first to see if it was soarable. If I sank out and landed, the pilots on launch would know to wait until the wind got stronger before they flew. But I stayed up!

I soared the ridge that day for almost six hours, surpassing my personal best by lightyears. I had launched first, and after I watched the red orb sun dip below the horizon, I landed last. I'd spent almost an entire day flying high above the mountain. That terrible harness gave me bruises the size of softballs on my hips, but I was so excited that I had no idea until I reached the ground again. That was my first real taste of endurance hang

I was just there absorbing every experience that came my way. I went back to Morningside and flew the Wills Wing Sport2 for the first time and fell in love with flying all over again. That glider felt like a rocketship compared to the Falcon! Again, my summer days were numbered because I was leaving early for a semester abroad. And then I was gone.

TIME OFF

My senior year of college had arrived, and I left the flying world for a long time. I spent the fall in Malaysia studying and traveling. I took a couple trips to Thailand to climb and took my first paragliding tandem as a tourist in Bali. Classes and climbing absorbed my spring back in the US.

conducting sea-turtle research alone beside the Atlantic. I saved every single penny I made.

During this time, a goal started forming in the corners of my consciousness. I kept thinking about how much better I'd be at flying if I stopped taking so much time off. By the end of that summer in 2016, I knew that I needed to return to flying. And this time, I was going to get good at it.

BECOMING A COMP PILOT

After leaving Sapelo with a few thousand dollars in my pocket, I embarked on one of the most epic trips I've ever taken. I spent the first week in October at a climbing festival in Kentucky. After that, I drove north to Morningside Flight Park in New



LEFT Soaring below a dense 2500' inversion during task one of the Quest Air Nationals 2018. **RIGHT** After landing at Gilbert Airport in Florida at GOAL for the last day at Quest Air Nationals. 53 km flight. Photo by Dave Aldrich.

Hampshire and dropped every dollar I'd saved on my first hang glider—the Sport2 I'd flown that last summer, a sparkly red, white and blue delta that I named Captain America.

After some glorious and much-needed aerotowing and mountain flights at Morningside, I hit the road with Captain America somewhat firmly attached to the top of my vehicle. I spent a few days hiking with a friend in the Adirondacks, then spent a week climbing in Las Vegas. After that, I migrated to Florida for the winter because it was time to become a better pilot.

Some friends of mine let me borrow their RV to live in while I was there, and I secured part-time jobs at a high-ropes course and a pizza joint as a delivery driver. After my road trip and hang glider purchase, I was sorely in need of cash and biting at the bit for some airtime.

Living at the flight park was the turning point for me as a pilot. I gained the confidence to sift through good and bad advice, I met people willing to help me improve at all costs, I finally achieved my Hang 3 rating after three failed attempts (oh, yeah, that

was *rough*) and I achieved my goal. I was better at hang gliding.

It was there that I met my cross-country flying mentor, US hang gliding team member John Simon. A loveable brat from Boston, John refused to admit that he could possibly mentor me. He told me over and over that I needed to find a better mentor, but then he'd fly with me and coach me over the radio. Some days he'd guide me in his topless wing but sometimes he'd fly a kingposted wing and putz around with me. "I f***** hate kingposts," he'd mutter when we landed just 13 miles from launch. I was busy doing happy dances from achieving another personal best. He informed me that I was great at finding lift but terrible at thermaling, and the only payment he ever asked for was my guacamole recipe.

Following some epic winter cross-country flights, I registered for my first hang gliding competition: the 2017 Green Swamp Sport Klassic. With John's help, I was slowly learning how to use my complicated flight navigation system, the FlyTec 6030, and becoming keenly familiar with the

Florida landscape from the sky. I was nervous and ready.

The coolest thing about the Green Swamp is that each competitor is teamed up with other pilots that have similar performing hang gliders, and every day the team is paired with an experienced mentor. These mentors walk the team through every aspect of competition flying and fly with the team during the comp, coaching them on the radio along the way. I learned something different from every mentor I had. Davis Straub taught us how to find lift, Mick Howard made me thermal like a beast and Tom Lanning taught me to plan ahead.

Tom also gave me some of the best advice I've received as a new competition pilot. On a challenging day he told my team, "This is not a day to race, but just a day to stay in the sky." I spent almost five hours on the last day of the competition getting pummeled by a hard crosswind, echoing Tom's words in my head, *The only thing I need to do is STAY UP!* And it worked! I fought into goal after refusing to let myself just go land, exhausted, exhilarated, elated. That was the moment

"He informed me that I was great at finding lift but terrible at thermaling, and the only payment he ever asked for was my guacamole recipe."

that I was sold on competition; I had found my niche.

Later that year I registered for my first sanctioned competition, Midwest 2017 in Wisconsin. No mentors this time, just me and my competitors. Here I learned the hard way that mentality can change the game entirely. Suddenly my competitive nature got the best of me. I gave into the pressure and forgot to be happy, and I had an inconsistent performance. I still did OK, but I wasn't happy, so was it even worth it?

I headed into the first competition of the 2018 US hang gliding season, Quest Air Nationals, with my shortcomings at Midwest at the forefront

of my thoughts. I'd been practicing for months, visualizing and prioritizing happiness in flight. When I would land during competition days, I would assess how I was feeling. I was *always* feeling happy. Then I would tell myself that no score could ever take that happiness away from me, and I refused to look at the leaderboard until late at night. Instead, I chose to soak up the happy vibes that built with altitude and didn't deserve to be fleeting. In flight, when I realized I was tense, I would remember where I was—thousands of feet above the earth, soaring with no engine, beside my friends. How could winning possibly matter?

The mental practice has paid off so

far. I had my first consistent competition performance, I didn't ride the emotional rollercoaster up and down and I'm happier than ever. I achieved my goal of becoming a better pilot.

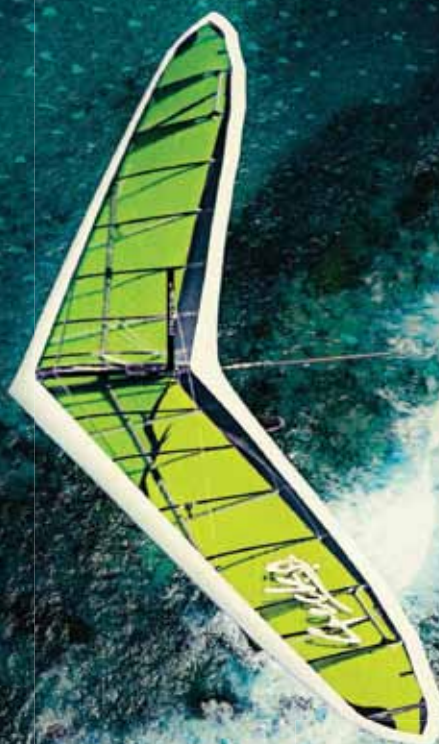
I started at Kitty Hawk at sea level, the lowest place you can get before leaving the earth for the ocean, but now I'm here. Now I'm thousands of feet above the ground, wildly excited for the upcoming Big Spring and Santa Cruz competitions. When I think of this winding journey I've been on, I reflect on those formative days at Kitty Hawk Kites and my happiness triples. I started on the dunes and I made it here and I can't wait for every adventure to come. 🇺🇸

MOYES GECKO 170 BIG BROTHER OF THE GECKO 155 HAS TAKEN TO THE SKIES...

The Moyes Gecko 170 is now in full production and just like its extraordinary little brother, the Gecko 170 has inherited all the superior qualities of the Gecko 155 – Excellent handling, mild stall, powerful VG and looking every bit the part!

This glider has been designed to satisfy a broad range of pilots. Whether your upgrading from a single surface hang glider or excited about recreational flying, the Gecko 170 offers fun flying while encompassing enough performance for you to push your skills and enter competitions.

Safe, easy flying with the potential to go a long way.



"I've never had more fun flying a Hang glider. I am coming from a single surface wing and was a little worried about the transition, but I could not be happier with how seamless it has been..."

David Morgan,
Lookout Mountain, USA

MOYES GECKO 170

SPEC - Pilot body weight:
154 – 242 lb / 70-110 kg

FACT - Longest flight to date:
124 mi / 200 km
Gulgong to Forbes, Australia

FEATURES: Unique luffline /side wire compensation system for true variable geometry; giving class leading performance and unbeatable handling characteristics





Kerio Valley

Chasing Personal Bests in Africa

by NICK GREECE

We went to the Kerio Valley to chase personal bests and world record paces along a courseline. The massive Rift Valley creates an ideal landscape/escarpment for world-record attempts for out-and-return, so I talked Cedar into coming along. We launched at 7 AM from the Elgeyo Escarpment that forms part of the western wall of Africa's Great Rift Valley and overlooks the 80km-long Kerio Valley located over 1,000 meters below. The result is a perfect flying ridge. The photos show how numerous pilots chase each other down the ridge to the north to begin with for 60 km out. We then headed back on the same ridge until we hit the launch and the southward journey into the bigger mountains. In

these photos, we are flying higher, towards clouds. When we landed, a gang of locals arrived along with trusty motor scooters, as all the folks in the flying zone who have scooters know we will hire them when we land. We packed up and jumped on the back of a scooter to rally back through countryside and villages and return to the hotel/launch.

CEDAR WRIGHT: Today I achieved a life goal! I flew over 100 miles in my paraglider here in Kenya! Nick Greece, who grabbed this photo of me early in the flight, is one of the best pilots in the States, and a creative individual as well. So when he invited me on this adventure para-

gliding mission to the Kerio Valley, I knew I'd have a solid mentor and a real chance of achieving a dream!

Today it all came together. I covered over 170 kilometers of wild African cliffs, mountains and beautiful villages perched on peaks. I connected countless thermals, sometimes skimming only a couple of hundred feet above wild ridge-top villages. The children ran out to see me in my paraglider and wave and cheer as I was yarded into the sky while riding a bucking bronco of heated, rising air at around 1200 feet a minute. My ears popped, as I rocketed up through the atmosphere! At times I was psychologically maxed out, but I knew I had to stay focused and in the game.

Safely back at our base at the Kerio View Hotel, it was hard for me to fully comprehend what had just happened! I took my body on an outrageous seven-hour

journey through the sky, interacting with the landscape in a way that is impossible to completely convey, but I would describe as being outrageous, absurd, and spiritual.

I've joked that paragliding is "Sky Crack," but the truth is that I'm absolutely addicted to this sport. There is something totally psychotropic about entering the macro world of birds and using all of your training, creativity, and mental stamina to cover long distances of unmotorized flight.

I've achieved my goal of tagging the 100-mile benchmark, but tomorrow I'll try for 200km, and then, I'll gun for 200 miles someday. I've always been obsessive and goal oriented, and flying paragliders is becoming as special to me as climbing or filmmaking for channeling that energy. 🇵🇰



ABOVE Launch starts early with a 8 am kick off. Luckily, its a three minute walk from breakfast. **OPPOSITE** Kids on launch make their own paragliders and practice what they see.





TERRAIN ▶ Leone Pascale, Kerio flying legend from Italy, carves up in his Aspen 6.

MARKET ▶ Market day in Eldoret means fresh fruit and track races. This is the epicenter of running in Kenya.

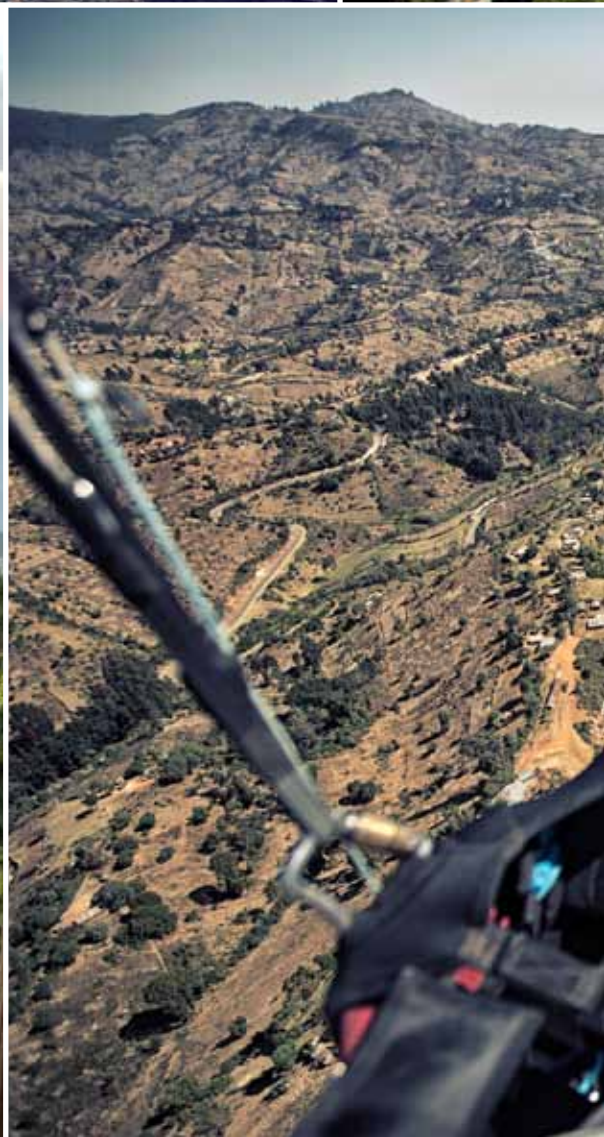


CLIFF ▶ Cedar headed to the wall at the start of the day.

RED ROAD ▶ Getting back to the hotel from landing out sometimes means two moto-rides.

WELCOME ▶ Local welcoming team.







RIFT ▶ A good view of the Rift as it races to the valley.

FALLS ▶ Cedar chasing waterfalls.

SUNRISE ▶ Cedar capturing the sunrise.



COCKPIT ▶ Gliding into the terrain low you can hear roars of children in each of the schools as you fly over, often singing out over the sound of your vario.



Higher Learning

Colorado College Students Pursue a New Passion

by TOM WEBSTER

When winter loosens its frosty grip, college students everywhere look forward to spring break—a chance to set work aside, get a change of scenery and sunshine, and perhaps engage in consciousness-altering rituals. There are better and worse ways to alter your consciousness, and, as a group of adventurous students from Colorado found out in March of 2018, one of the best ways is to learn how to fly. Educational field trips are nothing new, but what makes this one remarkable is how it came to be. The whole process, from inspiration to execution, illustrates the power of infectious enthusiasm. It also shows how important mentors are when your path is full of unknowns.

In August 2017, Ryan Hammes, director of the Outdoor Education department at Colorado College in Colorado Springs, started learning to fly paragliders and immediately became hooked. As the director of this department, he was in a position to share his obsession with a receptive audience. One afternoon, after a few weeks of training, Ryan brought his gear out to a campus playing field for some kiting practice. Soon, students started approaching to find out what was going on—most are not from the area, and

few had ever seen a paraglider up close. After chatting for a while, several students expressed interest in finding out more, and an idea was born.

Ryan scheduled a brief talk to flesh out the big picture of paragliding, going over the challenges involved in learning as well as the risks and rewards involved in being a pilot. Afterwards, several students decided they would like to take steps toward training, and plans started to fall into place. The group contacted local instructor Ted Smith to schedule some introductory kiting and training sessions, schedule and weather permitting, in the Colorado Springs area. As these sessions continued, the group gained momentum, and the students spent time forming further plans and researching their options.

Pursuing one's passions, academic or otherwise, with intensity is central to the philosophy of Colorado College. To support this pursuit, students are scheduled to take one class at a time for 3.5 weeks, with a 4.5-day break after each class. This arrangement, along with the school's proximity to vast alpine wilderness, makes it easy for students to go out and find adventure in their spare time. Something else that helps students gain new experiences is a fund set up

LEFT *Cloud 9 instructor Alex Taylor launching a student on the Point of the Mountain's north side.*

RIGHT *Cloud 9 instructor Billy Purden coaching a student on forward-launch technique.*

by the family of alumnus Ritt Kellogg, who tragically died during an Alaskan mountaineering expedition in 1992. The Ritt Kellogg fund offers grants supporting 12-day expeditions, anywhere in North America, for student groups that demonstrate proficiency in their activity and submit a plan that covers all the logistical bases. The fund also offers an education grant, up to \$475 per student, toward training in preparation for these expeditions.

With the support of this fund and the guidance of their mentors, the group started to focus on two goals: planning a potential expedition and arranging a concentrated, formal training session for the entire group. For a group of new pilots, coming up with a feasible paragliding expedition was not an easy task. Expeditions are trips that typically have an ambitious goal—like exploring an unknown area or summiting a challenging peak. Similar activities, like backcountry vol-bivouac (hike, fly, and camp) exploration, are indeed happening in paragliding now, but the skill and self-reliance required for that kind of activity is unreasonable to expect from new pilots.

Nevertheless, the students drew inspiration from some remarkable characters. Pro climbers Cedar Wright and Matt Segal, who were relatively new fliers at the time, summited and flew Mexico's 18,000-foot Orizaba Peak in 2016. The resulting short movie, *Fledglings*, not only stoked the students' enthusiasm but also offered food for thought in their brainstorming process.

Another journey they drew inspiration from was the Canadian Rockies Traverse conducted in 2015 by Colorado College alumnus Will Gadd and his partner Gavin McClurg. Even though it's a bit unrealistic to model a student expedition on a pioneering, minimally-supported project conducted by elite athletes, it might be feasible to scale the idea down to something with appropriate risk exposure and skill requirements. Since the expedition wouldn't be happening anytime soon, there would be plenty of time to gain experience and figure out what a reasonable trip would look like—maybe a big-mountain climb-and-fly, a guided vol-bivouac trip, or maybe something nobody's thought of yet?

The other goal, setting up training, was more straightforward. To ensure the best chance of progress in their allotted time, the group set up a lesson plan with Cloud 9, a well-established school at Point of the Mountain in Utah. The "Point," one of the most consistently flyable training sites in the country, is within road-trip range of the col-



lege. As the students progressed through their course, they encountered new and interesting concepts. One was the extraordinary importance of good weather for flying. Even at a consistent site like the Point, good weather is not guaranteed and infinite patience is required to make progress. Luckily, these students had it, and a few were able to make soaring flights before the end of the trip.

The students found the level of autonomy they were given during the training interesting. Paragliding is usually taught by going solo very early in the process: It's "all you," as one student observed, once you're off the ground. Even though the instructor is right there on the radio, it's ultimately the individual's task to make safe decisions and then execute them. Another student observed that learning to fly seems as if it's more about understanding risk and less about going through a step-by-step process. By the end of spring break, five students had earned their P2 ratings, two more established plans to finish later, and two were undecided as to whether they would continue.

The next goal for the group will be to build a stockpile of entry-level gear for students to use while they're assembling their own personal kit. This gear will be available for any club member with their P2 rating to rent. And since action tends to generate interest, Ryan is optimistic about growing the group and setting up more trips with new recruits.

I had a chance to talk with the students on a bad-weather day when not much was going on. Many said they would not have been likely to pursue flying if Ryan had not sparked their interest, and if there had not been some logistical help available. Even though many had a deep desire to fly, had some awareness of the sport, and didn't consider the long-term cost prohibitive, the thought of taking the first step at this point in their life simply wasn't on their radar. Why would that be?

Human brains have evolved to solve problems and make

decisions as efficiently as possible, whether or not they have abundant data on which to base those decisions. As the cognitive psychologist Daniel Kahneman points out in *Thinking, Fast and Slow*, one of our most useful problem-solving tools is a rule of thumb called the availability heuristic. When we're puzzling over a decision or evaluating a topic, this heuristic creates a bias *toward* ideas supported by readily available information and *against* those supported by harder-to-access information. This bias isn't necessarily negative—it's just an arrow sending you one way or another at a decision point. For example, if you've recently been in a

car accident, you're going to feel like car travel is more dangerous than it actually is, since the memory of the accident is more quickly accessible than statistical data that would give you a more balanced view.

This effect also shapes public perception of hang gliding and paragliding. Rare birds that we are, our in-person exposure to the public is close to zero, even in hot spots like Salt Lake City. So, easily accessible information, like accidents in the news or unusual stunts that get shared on social media, is what most people base their attitudes on. That kind of information paints a picture of something unreasonably risky



KAITLYNN



EMMA



MICHAEL



CLAIRE

KAITLYNN HICKMANN, FILM/MEDIA

Any prior exposure to paragliding?

No—but I grew up doing other outdoor sports like skiing, mountain biking, and backpacking. *How likely would you have been to pursue paragliding on your own?* Not likely in the short term, but eventually it might have happened. If I were able to pick a superpower, it would be flight. *Any plans to continue flying in your home area?* Yes, for sure. *Any long-term goals with paragliding?* Nothing specific right now, but cross-country looks interesting. *Did anything surprise you about the training process?* The first time I took off, I thought, "Oh my god, how am I going to land?" So it was a good feeling to make a nice tiptoe landing after that.

EMMA STONESMYTHE, BIOLOGY

Any prior exposure to paragliding?

No, hadn't even heard of paragliding before finding out about it through the group. I was first drawn to it because it seemed like something interesting to

do for spring break. *How likely would you have been to pursue it on your own?* Eventually, maybe. *Any plans to continue flying in your home area?* Yes, but not until school is done, and wherever I end up. *Any long-term goals with paragliding?* Cross-country flying, perhaps. *Did anything surprise you about the training process?* Progress is more up to the student than I expected (that's a good thing). The training isn't laid out in a step-by-step way to the same degree that other sports are.

MICHAEL HASSON, GEOLOGY, HISTORY

Any prior exposure to paragliding? Not personally, but I was aware of a few well-known climbers who have taken up paragliding. *How likely would you have been to pursue it on your own?* I would have been pretty likely to get into paragliding eventually, but probably not while still in college. *Any plans to continue flying in your home area?* Yes. *Any long-term goals with paragliding?* Mostly

just developing as a pilot. *Did anything surprise you about the training process?* The amount of freedom you are given as a paragliding student. This makes it really interesting to learn.

CLAIRE BRESNAN, ORGANISMAL BIOLOGY

Any prior exposure to paragliding? No personal experience. I was aware of paragliding and thought it was cool, but I had been focusing mainly on climbing. *How likely would you have been to pursue it on your own?* It's hard to say. Maybe. *Any plans to continue flying in your home area?* Hopefully yes, but I'm not sure. *Any long-term goals with paragliding?* Mainly to gain more experience this summer, possibly do some cross-country flying, and participate in an expedition with the college. I might be interested in attending an SIV (over-water safety clinic) next year. *Did anything surprise you about the training process?* It was a little surprising how quickly we progressed to the P2 signoff.

and hard to access—something regular folks don't do. This puts the thought of pursuing flight out of mind.

How does one break through this bias and help people bring their dreams of flight to fruition? Start by being relatable to people who encounter you outside in a flying situation, like a hang glider launch area or a paraglider kiting field. Your behavior should help answer the questions: "Is this person some kind of freak?" and "Can I do that?" (The first answer should probably be "no", and the second should probably be "yes".) You can also take inspiration from the Colorado College group's mentors:



- *Find a receptive group to share your passion with.* When someone starts a new sport, they come in with a set of expectations around certain factors, such as how much time it takes to develop key skills, what risk mitigation looks like, and many others. If reality comes close to expectation, they'll likely stick with it and keep developing. If not, they'll get frustrated and drop out before getting established. People like the Colorado College students, who have familiarity with adventure sports, tend to come into flying with a healthy set of expectations and, consequently, tend to do well.

- *Realize you can be a mentor at any level of experience.* You don't need to be an instructor or even an experienced pilot to give people a hand up. As a student pilot himself, Ryan was in the right position to bring in beginners: He



was fresh enough to remember the main challenges in the learning process, and had seen enough to recognize best practices.

- *Treat everyone with equal expectation.* The group included five men and four women; there has been roughly equal interest among male and female students on campus. This mix contrasts sharply with the male-dominated world of hang gliding and paragliding, which begs the question of why these sports are dominated by men. If there's a clear answer to that question, it isn't obvious to me. What is obvious is that a person's gender doesn't affect their interest in adventurous pursuits. When a mentor expects someone to succeed, they tend to rise to that expectation. Expect more women to be interested in flying, and our demographic balance might change to something that makes more sense and strengthens the community.

- *Draw people forward with interesting goals.* Many of the students were inspired by a video of a pioneering expedition, even though they realized that attempting a similar project wasn't a reasonable goal (not in the near term, anyway). Most, however, do intend to pursue cross-country flying. When you have your eye on an ambitious goal, it'll pull you in the right direction, even if you find a new path along the way.

- *Help with logistics.* Trips need to be planned, instructors need to be contacted, options need to be researched. Beginner pilots are in the dark on important topics like where to go, when to go, whom to learn from, and what goals to set. Even if someone has just had one or two experiences, those are valuable to someone with none. Pooling resources and sharing gear serves an obvious financial purpose. Additionally, it lowers the psychological barrier associated with spending money on something unfamiliar.

Learning to fly brings us into a world with unfamiliar problems to solve, with fewer limits than we're used to. The richness of this experience makes it a great tool for personal growth, making a college campus seem like a natural place to recruit new pilots. Usually, though, it's hard to generate new pilots from college clubs. Even highly motivated students tend to be too busy studying, too low on cash, and too far from a reliable training area to make it work. Although it can be a frustrating challenge, the Colorado College group shows what can happen when a receptive group is given a little help and is led by an enthusiastic mentor. There are plenty of folks out there ready, willing, and able to fly. They just need a small push in the right direction. 🇺🇸

TOP Michael Hasson gets in the air for his first soaring flight. **BOTTOM** Ryan Hammes, director of Outdoor Education at Colorado College.

Coming Correct

Changing the Culture of Incident Reporting

by CALEF LETORNEY

Admitting mistakes is never fun. It's embarrassing to think about screw ups, let alone discuss them. And so it's only natural that most people opt to deal with mistakes quietly... like the time I tore the kayak off my roof rack while driving into the garage. No big deal, nothing a blowtorch couldn't fix and not much to talk about... But when it comes to piloting, it is our *responsibility* to share incidents. Why? Because we need this information to improve the safety of our sports. The bonus is that incident reporting is the single biggest thing we (you, me, everybody) can do to help reduce our insurance premiums. Counter intuitive, I know, so stick with me.

Before we delve into why you should care, here's why I care: I am committed to studying accidents and working to avoid them because of Max. A college kayaking buddy, Max was the first person to tell me about paragliding. He had just earned his P2 and he glowed while described flying. My mind was blown. I'd never heard anything like it. Seeing my interest, Max argued that my success in whitewater kayaking demonstrated excellent decision-making and an expert understanding of fluid dynamics. I was a shoo-in. "But Max," I said, "bad decisions and misreading whitewater are pretty much your MO. Your signature move is to take a beating and claim you meant to..."

So what does this mean for you?" Max fired off a grin and explained that he feared the consequences of flying more than kayaking. That fear kept him in line. Good enough for me.

I dove in head first. A month later I got a call from my instructor to tell me that Max had crashed. Details were slim, but apparently he had taken a road trip to the big mountains. On the ride to launch Max asked a mutual friend how to do wingovers. He received accurate, but, I would argue, inappropriate advice. Max proceeded to enjoy an epic, high glassoff flight that lasted over 90 minutes; it would be his best and worst flight. Max was found deceased with his reserve lying next to him, out but not yet open.

Max's accident has had two profound influences on me. First, I don't hesitate in throwing my parachute. I've tossed twice and twice I've walked away with only mental injury (fear that lasted years) and flew again the next day. Yes, it's scary and embarrassing, but as Rev. Santacroce says, "Those that toss, live." Having dutifully run down that rabbit trail, the second impact of Max's impact, was my enduring interest in accident analysis. Simply put, dissecting accidents and learning how to avoid those mistakes was just about the only way I could justify the absurdity and selfishness of sticking with this new drug that had just taken my friend.

You may have heard that *accidents have multiple causes*; we seek to identify and reduce those causes, as breaking just one link in the chain may prevent an accident. Looking at Max's accident, it's not hard to see the errors. Max was attempting to teach himself acro (strike one), over the ground (two), low (three), at high altitude (four), while amped up from an epic flight (five). When you think about it like that, Max's accident hardly seems random. But do you think Max understood those risk factors?

Currently we rely mostly on anecdotal evidence and intuition for accident analysis; we see accidents and we make assertions like I just did. I've no proof and even less ability to understand the relationships between various factors. But if we had statistically significant data, smarter people than me could use regression analysis to really pick apart this problem. We could not only better understand the primary causes, but also tease out relationships between contributing factors.

What is regression analysis and how can it help make free flight safer? According to our very own data analyst and HG legend Dr. Felipe Amunategui (AKA Flipper): Our ability to predict events such as weather patterns or stock market changes is very limited, but it can be improved somewhat by looking for relationships between one



ABOVE *Good thing we brought the big ladder! Photo by Calef Latorney.*

or more variables and the chances of an event happening. Statistical methods allow scientists to measure the strength and relationship between variables and a specific outcome. These methods are usually referred to as correlation analysis or regression analysis. Regression analyses are used by insurance companies, for example, to determine the risk a given individual has of experiencing an adverse event such as death. Regression analyses have been used to determine that women live longer than men, that married men live longer than single ones, and that women's life expectancy is not increased by marriage. Another statistical trivia from this type of analysis tells us that the lowest probability of getting a speeding violation on an interstate is between Wednesday night and

Thursday morning in the middle of the month. By accumulating information on accidents and incidents over time, we will be able to create increasingly accurate risk estimates for a given pilot flying a specific site during a specific part of the year. Without the information you provide we will remain ignorant about what are real risks, for whom, and under what circumstances. All tidbits of information may be useful at this point as our accident-and-incident database is in its infancy. I have a dream that one day pilots may be able to accurately estimate risk and to identify specific variables to address in mitigating the risk.

Flipper fantasizes that with enough data, one day we could go so far as to create an app that could use the various factors of the flight (weather,

site, pilot, equipment, etc.) to give a pre-flight risk assessment with probability of incident. We're talking about statistically-driven risk forecasting with suggestions of hazards to watch out for. To be sure, this is a long way off, but these things are not impossible.

Closer to reality, if we had accident information we could study it and perhaps learn more about how to mitigate the risk factors, then integrate these concepts into our instruction pedagogy. But first we need the quality data. You may have heard the expression "garbage in, garbage out." Our hush-hush culture yields a dismally low rate of incident reporting: garbage data. Have you reported all your incidents? Yes, I am asking you. Until recently, neither had I, so it's no wonder we can't yet do meaningful data analysis. We need



ABOVE *Launching!*

the data first, and in order to get that, we need to change the culture around incident reporting. Incident reporting needs to be commonplace, or better yet, expected.

What should be reported? For the best analysis we need data on ALL incidents and accidents. What's an incident? An incident is anytime a flight plan deviated from normal and had the potential to become dangerous. Blown launch that resulted in a paraglider in the bushes or trees? Incident. Broken weak link towing? Incident. Broken HG tube on landing? Incident. Scraped knee while kiting? Incident. Think about the above scenarios—they can be commonplace and forgettable, or fatal; the difference is luck (and maybe quick thinking and skill) so we seek to study *all* incidents. Anything that required medical attention (the definition of an accident) should absolutely be reported. If you had to ask yourself “was that an incident?” the answer is almost definitely yes. Forget the excuses and give us your data!

Now you're probably thinking “ARE YOU SERIOUS?! That's a lot of logging!!!” Yes, yes it is. Fortunately it's quick and easy. I've reported many incidents (both my students', friends', and my

own) and it only takes 5 to 10 minutes. With all the time and energy we put into flying, we can invest 10 minutes more to divulge our (hopefully) infrequent mistakes. Do your part.

HOW TO LOG: Go to www.USHPA.org> Pilot Resources> Safety and there's a link. www.USHPA.org/page/incident

Leading by example: We're asking you to make a quick, private incident report, which to some still feels embarrassing and cumbersome. To show that talking about our mistakes is no big deal, Flipper and I are going to go way beyond what is being asked of you. Here are detailed accounts of our embarrassing screw-ups.

CALEF: At a closed ski area in Vermont on 11/18/2016 I blew a launch on a paragliding flight with a friend. I had just finished helping a few newer pilots launch and the conditions were getting worse. The ski-trail launch was a moderately narrow slot in the trees with a decent grass slope. The wind was calm, or up to 3 or 4 mph from 90 degrees cross. Occasionally the wind trickled downhill. Not ideal, but it was light and I've launched like this before (*strike one*). So we did a forward launch in a calm cycle. We ran, and ran, and

ran down the ski slope. Actually, the video revealed it was just me running as my passenger sat down almost immediately. Still, my fault for putting us there and not stressing the running part enough during pre-flight (*strike two*). Finally just as we were lifting off, 70' farther down the trail than normal, my left wingtip hooked a snow-gun boom sticking 20' out into the ski trail (*strike three*). When I saw the snow gun hooked on my wingtip I immediately took a wrap and flared with all my might. We tetherballed around the snow gun. The boom rotated 90 degrees and took a lot of energy out of the equation. We left the ground for a second and came down in a tumbling tandem PLF. The wing fell onto the trees. We got lucky. No injuries to pilot, passenger, or wing. After a thorough inspection of the glider, two hours later I launched and had a nice sled ride.

How did this happen? The conditions were worse than marginal. I had taken similar risks before and always done well, so I had normalized that risk. This is especially not cool when flying tandem. Then the snow gun surprised me. It was over the rise, not really visible from launch. In late April at the start of the flying season I had moved that gun completely out of the way. I never thought to look again, but the snowmaking crew had recently (in the last week) put it back into position (sticking way out into the trail) in preparation for the snowmaking season. Surprise! In the heat of charging down launch, I just didn't see the narrow silver gun sticking way out of the tree line. From this incident I have learned several things: First, I am even more conservative and respectful of launch conditions, especially on tandem. Second I now check to make sure the snow guns are out of the way every time we launch.

FLIPPER: Turning from the downwind leg to base, the hang glider's adverse

yaw tracked me away from the narrow landing zone. With less than 100 feet from the ground, the path of the glider presented three options: a house, a large pile of bricks or a 60-foot-tall oak tree. It was 1996, the glider a Pacific Airwave Magic Kiss (of death), the site Italy Valley, NY. I had flown for 65 minutes in glassy air before heading to the LZ. While I had well over 1000 hours flying hang gliders, this was a new glider to me, and it had very different characteristics from anything I had flown up to that point. Also, I was about 50 to 75 pounds BELOW the recommended pilot weight.

I picked the oak, and did the best flare I could on the very top of the tree. Flying in the East one learns that there are two type of pilots: those who have landed on trees and those who will. I had just changed my status, but I was prepared. Upon "landing" (or arbor-ing) I let go of the glider and grabbed tree limbs for dear life. Once the glider settled, I produced my tree-rescue kit, and proceeded to tie the glider to the tree. I had to wait an hour and 45 minutes hanging out waiting for a vintage fire truck with a telescoping ladder to arrive from a nearby town. I was fortunate to have a very understanding rescue squad. They agreed to use the ladder to pluck the glider from the oak, so it flew again the next day. There was no AIRS back then to report the incident, and I was terribly embarrassed by the entire event, but there were important lessons to gain from it. Like: Fly new gliders in places that do not require a precise approach. Carry a tree rescue kit with you, and know how to use it, and fly within the weight range of your glider.

But wait, there's more: We'll pay you cold, hard cash for reporting your incidents! Joking... sort of. You won't get a check in the mail, but incident reporting is the number-one way to reduce USHPA's insurance costs. Insurance


is a leading expense for USHPA and if we can reduce the insurance costs, we can reduce membership dues. Most people would assume that reporting incidents makes insurance premiums go up, not down. Our situation is just the opposite. USHPA is the majority shareholder in our insurance company, but our rates and reserves must be approved by industry regulators so we don't bankrupt our nascent insurance company. A major contributing factor to USHPA's high insurance rates is IBNR, which stands for "Incurred but Not Reported." Basically, unlike automobile crashes or home fires, USHPA has very, very little data on the number of incidents that happen in our sport and how likely they are to result in claims. As such, the insurance actuaries recognize that there is a high likelihood that people are getting hurt and not telling anybody, but these injuries could later result in insurance claims. We are exposed to liability from claims on accidents we don't even know happened. This is the heart of IBNR. A major part of USHPA's insurance premium goes into reserves that we are obligated to hold onto until the statute of limitations of potential IBNR accidents runs out. Yes, we get the IBNR money back eventually, but in the meantime our insurance rates are high, which directly contributes to why membership dues have increased from \$99 to \$150/yr. BUT, if the USHPA community can show success in logging all our incidents, we can convince the regulators to reduce the cost of our insurance due to IBNR. Confusing, yes. At the end of the day we need to trust when the smart folks at our insurance company tell us the best thing we can do to reduce insurance costs is to report all incidents. Crazy, I know.

It's understood that culture is the hardest thing for an organization to change and the hush-hush culture around accidents is no different. This

change isn't going to be easy, and we need everybody's help. If you see or you are involved in anything that smells like an incident, *PLEASE* report it. If you're an instructor, don't forget that you are already *obligated* to report accidents, and failure to comply is grounds for revocation of instructor certification. Don't be afraid that reporting incidents is going to get a school in trouble. On the contrary, PASA and the RRRG expect commercial operators to have incidents; it is an unavoidable part of our sports. So when a commercial operator has never reported, rather than looking squeaky clean, this appears dishonest.

To be clear, nobody's asking you to publicly post so the misanthropic hyenas of the internet can pick the meat from your self-esteem. You just need to take five minutes to file a private report so we can all learn from your mistakes. And who knows, the knowledge gleaned from your incident report might save a life, perhaps even your own. So let's report all incidents and work together to create a culture of incident reporting.

Your AIRS report is confidential, anonymous, and protected by a Federal Certificate of Confidentiality. This means that it is impossible for an attorney or judge to force the disclosure of information entered into our accident and incident reporting system (AIRS). This step was taken to protect reporters, the sensitive information shared by observers, and to protect access to sites. Once in AIRS, information cannot be removed, and it can be accessed by three individuals only. Access also requires having a decoding key. Even if the database is hacked, it is meaningless without the decoding key.

And if you witness or endure an event, do not assume someone else will report it! Go ahead and make your own report; we can easily handle multiple reports about a single incident. 





Is That Bird a **MAN or WOMAN?**

written by JEFF SHAPIRO
photos by JONATHAN BYERS



What makes a good pilot? Is it capability? Is it experience? How about talent and knowledge, or the willingness to work hard? Maybe what makes a good pilot is the simple vision that it's possible to fly like we dream, coupled by the motivation to turn that belief into lifestyle.

What I *do* know is that this question has absolutely nothing to do with whether you're male or female. Some of the best and most skilled pilots I know are women, yet when I've looked around at the hang gliding or paragliding launches I've visited, the pilots have been overwhelmingly and predominantly male. Why?

Luckily, our flying scene in Missoula, Montana, has recently gained a (relatively) large influx of female pilots. Learning together, inspiring each other, and building strong community within our club has allowed us all, men and women, to learn more and to improve collectively. So much so that I became interested in exploring why there is a lack of balance in our sport. I asked each woman to share a little about her entry into paragliding and hang gliding and to possibly shed some light on how to bring the magic of flight to more of the women out there who might, for one reason or another, feel unsure whether it's for them.

First up is Taylor Schiltz. Taylor is a 26-year-old elementary-education grad student at the University of Montana.

JS: Taylor, how important is the sense of community for your flying and what inspires you most as a developing pilot?

TS: Community is huge! In fact, it is one of my favorite aspects of paragliding. Since it's only been three months since I learned to fly, I'm amazed at how many absolutely wonderful people I've met through paragliding and the large number of new friendships I've formed. Each of the women in our community who has expressed interest and/or is actively learning to fly is incredible and a constant source for inspiration. In fact, it wasn't until my good friend, Jen, told me she was going to learn to fly that I considered doing it myself. When she invited me on a trip to Salt Lake City to get instruction from Utah Paragliding over spring break, I knew it was my chance to enter the sport—a good example of how community and a friend's support can make the difference. As it turned out, training with another woman made the experience much less intimidating. It was also special to have a friend to share and process the challenges and successes that accompanied learning.

As a beginner pilot, the more I learn about the endless opportunities the sport provides, the more excited I get. Each chance to observe more skilled and advanced pilots, as well as hear their stories and advice, inspires me to



ABOVE Jenna Lyons' smile says it all. **OPPOSITE** Brihannala Morgan launching into a warm and sunny spring morning in Missoula.

continue practicing. As I enjoy this exciting new phase and absorb the thrill of flying for the first time in my life, I also aspire to someday have the skill set to comfortably fly and explore entire mountain ranges and breathe in new scenery around the world.

JS: Watching you fly, I have no doubt you'll do just that! Relative to your learning experience, can you list anything you found to be particularly helpful?

TS: Kiting has been extremely important, giving me the confidence to launch in higher winds as well as from more technical sites. For example, the launch area at my first mountain flight in Utah was small, just big enough to lay out a single wing, and was surrounded by bushes and trees. It also had a steep drop-off, leaving just enough room to pull the wing up and take a couple steps before flying. With barely enough breeze for a reverse launch, I was super nervous and shaky. I shut down my wing on the first two attempts, until I successfully launched on the third. Reflecting back, I wouldn't have been able to fly the site if I had had to focus on the motion of a reverse launch. For two months preceding my first flight, I had practiced kiting and launching techniques. The repetition through kiting created muscle memory that has been instrumental

toward each successful launch since learning.

I really enjoyed the online ground school course from Utah Paragliding. I went through the videos while practicing my ground-handling skills during the two months before my lessons began. That seemed to help me prepare mentally for flying, while giving me time to digest the information at home, instead of while I was overwhelmed and too excited to fully absorb what my instructor was saying at the training hill. The online course also introduced us students to extensive theories and techniques that I felt could not have been covered in person during the time it took to physically earn our P2 certifications, because, like many, Jen and I had to travel for lessons and had “normal life” time limitations.

JS: Jen, I just spoke with Taylor and she was telling me a bit about your trip to Utah and how you learned to fly together. You’ve been a driving force in the community of women here in Missoula, and I was hoping I could ask you about your experience and views. Can we start by introducing you to the readers?

JO: Sure! My name is Jennifer Orchard, I’m 29 years old, and I’m a math teacher in Frenchtown, Montana. My fiancé, Casey Bedell, introduced me to this wonderful sport. He’s



ABOVE A bond of friendship and support born from free flight. Left to right, Bria, Kara, Jen and Taylor.

been a passionate pilot for the past seven years and has been instrumental as a mentor to Taylor and me, both before and after our instructional course with Jonathan and Hal at Utah Paragliding.

JS: Cool, Jen! It’s amazing to share the addiction of free flight with the people we love. What are some of your paragliding goals, and what steps do you plan to take to achieve them?

JO: The big ones include: spending more time kiting than I do flying, learning more about flying-related weather, eventually going XC and competing, vol biv, and ALWAYS remembering the reason I started this sport—to have fun!

Taking those steps will feel easy considering that all I want to do when I’m not working is paraglide. So when the weather isn’t ideal for flying, I will kite, and when the weather looks good, I’ll kite and fly. I have been listening to the Cloudbase Mayhem podcasts to learn more and listen to more experienced pilots. It feels great to know Casey will be helping me through it all, passing on his experience, advice, and passion for the sport.

JS: Jen, do you think there are any differences in the sport of free flight that apply to men and women?

JO: This sport seems to be dominated in numbers by men. As Taylor and I were learning, it seemed as if we were the only women interested, but as we got closer to getting certified, Missoula’s women paraglider count appeared to rise quickly. Other than the number of women and men who currently participate, I don’t see many apparent differences. It seems as if everything equalizes once we’re in the air. Being a new pilot, I’m excited to learn with every new experience. I think the most important skills to obtain are mental strength, concentration, confidence, and the ability to make quick decisions in the air. These skills are equally as achievable for women as they are for men.

Next, I interviewed Jenna Lyons. I’ve just met Jenna but have followed her ultra-running exploits for years. Jenna grew up in Idaho and although she had plans to be a professional ballerina, she decided to go to law school instead. She’s currently a criminal-defense lawyer post-grad and thinks paragliding may, or may not, help her with the bar exam in May.

JS: Jenna, what have you found most challenging about learning to fly a paraglider?

JL: The most challenging aspect of learning to fly a paraglider has been forcing myself to work with elements that are completely out of my control, such as mountain weather. As someone who trains to compete in moun-



ABOVE Kara Shapiro pulls her wing up on the south summit of Missoula's Mt Sentinel.

tain running, I'm used to being able to train in whatever weather is occurring outside. With mountain running, it's all about following the program my coach gives me; altering my nutrition and hydration; staying injury-free; and making sure I get the weekly mileage, intervals, and elevation. These are variables I can control. With paragliding, I can't control the wind and have to clear my schedule to go when conditions are right. I thought the gear would be complex and hard for me to learn to use, but so far everything about the wing makes perfect sense and the process has been super fun!

JS: What kind of person do you think is most likely to be attracted to free flight, and what do you see as differences, if any, between the men and the women who fly?

JL: I think paragliding is a sport for everyone. If you are a person who enjoys feeling in control all the time, paragliding may require you to adjust your mindset. There are so many variables involved! I've had the Greek myth of Icarus in my head since I began learning. Relatively, I think mindful and cautious personalities will benefit the most by capitalizing on safety and being conservative in their risk-taking. I think studious people can learn more easily because there is a nerd element to paragliding, with all the gear, science, and meteorology involved. I've noticed subtle

differences between men and women, especially within the learning process, but I think women may pick up on the intricacies of the glider more easily. Women also seem to have an innate persistence that seems to benefit them in this sport. Men seem to take risks more readily. There are quite a few women paragliding in Missoula right now and as beginners, I think we're all focused on empowering each other to succeed while enjoying the process of learning. I think watching another woman pilot, Kara, fly right before me played a huge part toward my feeling ready to fly for my first time.

The "Kara" Jenna referred to in her last sentence is Kara Shapiro. After being partners for more than 25 years and being exposed to my passion for flying, she decided this year that she wanted to fly her own wing, which has been as fun for me to watch as it's been for Kara to learn...although she might disagree.

JS: Kara, what fears and doubts did you have to overcome, if any, to learn to fly? How has learning, and continuing to learn, affected the rest of your daily life, work, family, etc?

KS: Back in '94, I tried hang gliding. I had several training-hill flights that went well except for my last one,



ABOVE Amy Grace readying for a magical evening sled ride over Anaconda, Montana.

which was memorably traumatic. I came out scot-free, but it scared me. Right then and there, my decision was to stop and honestly, I wasn't sure I was cut out for hang gliding. Looking back at that incident, it definitely could have been avoided but at the time it was just too traumatic for me to want to continue. I never thought in a million years I would ever try to fly again because of this major mental block from my crash. I flew tandem, but just didn't have the urge or drive to contemplate ever flying solo.

Over the last few years however, the desire to possibly paraglide had slipped into my mind. This form of flight seemed a little more up my alley and potentially more attainable. Even still, during my first day on the training hill, I was filled with fear. Flashes of memories from my crash were front and center and I had to overcome those fears and realize that it's alright to have fear. Fear is healthy! To not try something because I'm scared can stunt my growth in all aspects of life! It took all the courage I had to pull that glider up and run off the hill. Sensory overload was in full effect, but I ended up with 52 more training hill flights over the next few days and each flight after that first flight got better and easier (yesss!!).

Learning to paraglide has been an amazing, and humbling, experience. My main focus right now, besides flying, is kiting. I realize that kiting is going to make all the difference in the world with both my skills and my confidence. Since learning how to paraglide, I need to keep the other aspects of my life in check because now, all I want to do is fly! I realize I have a lifetime to learn and it feels great to have my family on board. Because you (Jeff) fly, and our daughter wants to learn (she was inspired by my time on

the training hill!), it makes this passion easier to do. The support of my family has been everything. The fact that you both came down to Santa Barbara with me was incredible, and to have that support helped a lot and felt amazing.

JS: Tell me about your instruction, what you liked about it and appreciated.

KS: I went down to Santa Barbara and learned from Mitch Riley at Eagle Paragliding. Mitch was a top-notch instructor whose demeanor was exactly what I was looking for in an instructor. He had a calm voice over the radio and explained things in ways that made it easy to understand. When we were working on kiting/ground handling, Mitch had a great way of focusing on and pointing out the positive things I was doing while helping me with the mistakes I was making in a patient and relaxed way. By explaining both good and bad, it helped me wrap my head around what to keep doing and what to try to adjust. The training hill in Santa Barbara was awesome and the ease of retrieval (a van came down and picked us up after each flight!) was nice to keep us fresh for the many training hill flights we had!

JS: What are your thoughts on gender equality in the sports of paragliding and hang gliding?

KS: In my opinion, there is no difference relative to gender while learning to fly. The fact is, any human that tries paragliding goes through the same process to learn. The fact that I'm a more conservative learner is not because I'm a woman, it's because of my past experiences and my personality. I'm a cautious person in general. There are several beginner women pilots who are more assertive than I am and that's got everything to do with

that individual and nothing to do with gender. I've seen this on the training hill with both men and women; some are more assertive and some more conservative.

I have read about the lack of equality when it comes to competing, but it seems this has more to do with the size of the pilot and paraglider and not with gender. A larger pilot can fly a larger paraglider. The larger the paraglider, the better that paraglider performs (with the correct weight ratio) because of span. Comparing a lighter pilot and a heavier pilot, the heavier pilot will have an advantage because of wing size and the amount of ballast the smaller pilot might have to carry to have proper wing loading. Both genders have smaller and lower weight pilots but, as far as the ratio goes, the majority of women fit within the "small pilot" category and the majority of men fit within the "larger pilot" category. I wonder, if this is an issue, wouldn't it be good to have size categories instead of men/women categories?

JS: All great points and thoughts! Thanks for sharing, Kara, and believe me, I couldn't have been more inspired to watch you grow wings! You learned with another amaz-

the two-day intro class at Eagle, and after 18 short flights on the training hill, I was hooked!

JS: What can you share about the community of pilots in Missoula and how having other women to fly with has been, relative to your own experience entering the sport?

BM: When I was first thinking of learning to paraglide, I was pretty wary of the reputation of machismo within the paragliding community. This was born out of the initial conversations I had with paragliding instructors while scoping out different schools, on online forums, etc. I'm used to hanging out with strong male athletes, and really enjoy that community, but I knew learning to paraglide was going to put me in a vulnerable place, and that would be challenging. I'm so lucky that, in fact, I've been able to avoid a lot of those issues, and learn with an amazing crew of women (and some really rad, thoughtful men). Doing my initial P2 lessons with Kara was critical—we were able to support each other while getting past initial frustrations, identifying things that were and weren't working for us, and to celebrate those awesome first flights! That support has continued now that we're back in Missoula, and

"The fact that I'm a more conservative learner is not because I'm a woman, it's because of my past experiences and my personality. I'm a cautious person in general."

ing woman who is currently living in Missoula who I'm hoping to interview next. Can you tell me about her?

KS: I was lucky enough to learn with our good friend, Brihannala Morgan. Bria is 36, and is a campaigner for the Rainforest Action Network, where she leads their work to hold paper and clothing companies responsible for their impacts on tropical forests and the communities that depend on them. Originally, I think she's from Madison, Wisconsin, but she's been living in Missoula for 1.5 years which is fortunate for us!

JS: Hey Bria! Thanks for letting me interview you! What initially attracted you to the idea of paragliding, and why?

BM: I've always loved the idea of traveling by using the wind. Before I started paragliding, I was a sailor and also had a series of large kites that I used for kite buggying and (to a limited extent) kite skiing. I got excited about paragliding after listening to the Dirtbag Diaries episode about Will Gadd and Gavin McClurg's 35-day vol biv trip along the spine of the Rockies. The idea of being able to use paragliding to cover real distance, and to explore wild places, is really what gets me excited about the sport. So, as a birthday present, I signed my boyfriend and me up for

in fact, has gotten stronger as we've joined up with other women in town who also have recently earned their P2s. We've developed a Missoula women's text loop to coordinate kiting and flights, which has been great in building that supportive community. That all being said, I think it's important to acknowledge that I've been really lucky, and that this type of network is not necessarily available to all new women pilots. Of our new cohort of women P2s in Missoula, everyone (aside from me) is married to a pilot. This has been great for me, because when we go out, I am able to learn from these experienced (and supportive, super positive) men. However, if this community had not come together, and if these women pilots had not already had partners who fly, I think it would have been a lot more challenging to go from those initial P2 classes to getting to the point where I felt comfortable deciding to fly. I don't doubt that there would have been people in the Missoula flying community who would have been willing to help, but the reality is that those experienced pilots are all men, and that it can be challenging for a woman who is new to a sport to ask for time and support—especially from someone you don't know, in a sport with real danger, that has a reputation for machismo and risk-taking. Of course, I don't

think these issues are unique to paragliding. In a lot of our outdoor adventure sports, you have to learn from your community, and often there are more men than women. That said, from my experience in the climbing community, I've seen that in the last decade there has been a huge increase in the number of strong women climbers, and the presence of those women, both as role models and mentors, has made a huge difference in bringing up the next

"I think that more outdoor programs for girls at a young age would really work to boost the number of women involved in all outdoor sports, including hang gliding."

generation of women climbers. My hope would be that, as more and more women learn to paraglide and get to the skill level where they can support other new women pilots, it will make a real difference in making the sport more welcoming and accessible.

JS: Thanks, Bria!

Wanting to represent both forms of free flight, I had the privilege to ask a couple of Missoula's female hang glider pilots, Ashley Bielawski and Amy Grace, to share their thoughts. Being a passionate hang glider pilot myself, I've been witness to the imbalance of gender participation, so first, I asked my friend Amy Grace what initially attracted her to the idea of flying a hang glider, and what were the steps she took to make that idea a reality.

AG: I like to try new things and have always had an interest in flying, but the financial commitment of (general) aviation has always prevented me from pursuing a pilot's license. I also have a fear of heights and hang gliding seemed like a good way to challenge that fear. I knew people flew hang gliders and paragliders in the area so I did a simple search and found Paul Roys. We set up a tandem flight, after which point I was hooked. It was already late in the season and I had previous obligations that were priority, but I spoke with Paul about what I could study throughout the winter and he used that time to help me out with sourcing equipment so I was ready as soon as Montana thawed out. As it turned out, my fear of heights didn't bother me at all while flying!

JS: Has becoming a hang glider pilot changed you in any ways and if so, can you explain (maybe, how it's applied to your everyday life, confidence, perspective, etc.)?

AG: Hang gliding has had a rather significant impact on my life. When I started training, I was at a really rough, low point in my life. The process of learning to fly essen-

tially forced me to learn to trust myself and my ability to make decisions again. It has made me a much more self-confident person overall.

JS: Thanks, Amy!

JS: Ashley, did the lack of women in the hang gliding community discourage or motivate you, and how do you think we, as a free-flight community, can encourage more

women to participate?

AB: When I first took up flying, I wasn't completely aware of the lack of women in the community. However, that seems to be the trend in many outdoor sports, so I had made the assumption. I think that more outdoor programs for girls at a young age would really work to boost the number of women involved in all outdoor sports, including hang gliding.

As for women like me who are already past that point, I think that giving an invitation to watch some gliders launch up close would be a good way to get them involved! Watching from the bottom of the mountain makes flying look out of reach, but from up top you feel more involved, plus you get to meet the pilots in their element! I'm sure that many ladies (and guys, for that matter) would love to hike or drive up the mountain and watch some launches up close.

JS: I'd like to hear your opinion relative to whether a male or female instructor made any difference to your learning process.

AB: I don't think having a male or female instructor would make any difference at all. A good teacher is a good teacher, a good person a good person. My instructor, Paul, is amazing and has helped me through the process of getting started, finding affordable gear, and getting involved in our flying community.

JS: Thanks so much, Ashley!!

The last pilot I interviewed was Emily Garlough. Emily works for the local fire department and it was during a hike up the hill that some thoughtful conversation got me interested in writing this article.

JS: Emily, can you comment on the importance of com-

RIGHT *Friendship and support. Taylor and Jen having a blast during each and every step of their lessons.*

munity, mentors and where you live relative to learning to paraglide?

EG: The community of paragliders here in Missoula is unbelievably supportive of new pilots. I am consistently impressed that folks who have been flying for 10, 20, or even 30 years will take the time to share their local site knowledge with someone who has just a handful of flights under their belt. As a beginner in the sport I feel like I don't have much to offer and expect that more advanced pilots will tire of my basic questions, but flying here has shown just the opposite. Experienced pilots regularly invite everyone to join them when they hike, which has felt very welcoming. I have never felt anything but encouragement from these mentors whether I choose to launch with them or hike back down the hill. The P2 lessons can only get you so far as a new pilot. The wisdom of experienced pilots within our communities helps to keep us all safer.

JS: As a woman who works for the fire department, also a predominately male environment, can you share some thoughts and experiences for those taking up a sport like paragliding, and do you think that gender matters relative to free flight?

EG: As a woman in a predominantly male career and sport, I think the important thing to keep in mind is that we all bring a different skill set to the table. At work, I can't deny that a 250-pound man can lift a heavier load than I can, but that doesn't mean that he's a better fire-

man. I worked for years as a tree climber prior to joining the fire department and once had a boss yell at me while I was up in a huge fir tree to 'Climb like a girl.' At first I was confused and angry, but what my boss meant was that I needed to stop muscling my way through the tree and start climbing how my body wanted to move. Paragliding is no different from any physical job or sport. I think that body awareness and keeping a level head are far more important attributes than physicality as a paragliding pilot.

JS: I now know it's not opinion but fact that gender has little to do with who flies farther, or with more skill and better judgment. Experience and airtime clearly have more to do with who climbs or glides best. In other words, whether I frustratingly circle under Alejandra Canale or Nick Greece, Carl Wallbank or Kari Castle, it's painfully obvious that altitude means more than gender. After watching and interviewing the female pilots in our club, I know it's not about capability or talent, knowledge or potential, and without a doubt, it's not motivation or opportunity that has our sport's gender ratio out of whack.

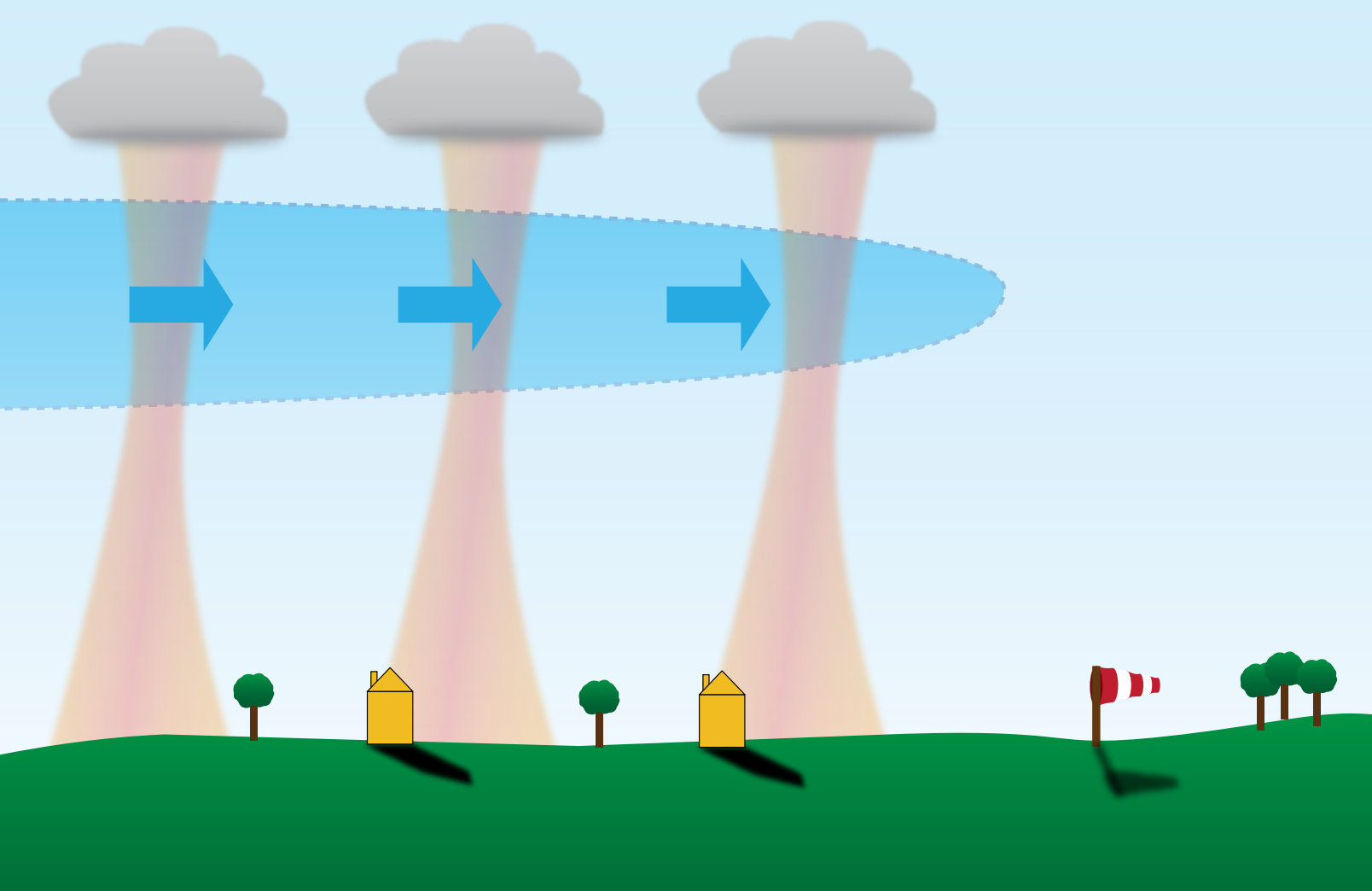
So, what is it?

It's my hope that women who read this article become as inspired as I am by these amazing ladies and meet us at cloudbase because, at cloudbase, man or woman, we're all pretending to be birds and our laughs sound the same.

"Is that bird a man or a woman"?

My answer: Who cares?! 🇺🇸





Cold Air Advection

by HONZA REJMANEK

As a recreational soaring pilot, you probably do not have the luxury of flying any day you please. Life has a way of loading countless obligations and responsibilities on us. What I also find frustrating is someone trying to persuade me to fly when I can't go along; they will soon be in the air, and I will not.

Knowing the soaring forecast is crucial before one can make the "All else can wait; I'm going flying!" decision. Since such a decision can result in unpleasant consequences at home or work, the flying had better be worth it!

Recently, the term "Cold-air Advection" has arisen in forecast discussions. Many of us might not understand exactly what cold-air advection means for flying, but we have heard that it is good for thermals. I decided to find out why.

Advection is just a fancy way of saying *horizontal transport* by the wind of some variable from one region to another. For example, there can be advection of temperature, humidity, and even stability. Cold-air advection occurs when wind blows from a region of colder air to a region of warmer air. The opposite—when the movement

is from a region of warmer air to colder air—is called warm-air advection. On a weather map one can look at isotherms, lines of equal temperature. As long as the wind blows parallel to the isotherms, there is no advection. This makes sense. If we disregard any radiative heating or cooling, we do not expect a change in temperature if the wind is blowing from a region that has the exact same temperature.

Why should cold-air advection help create better thermals? To answer this, we need more information regarding the level in the atmosphere at which the advection

is happening. The arrival of a sea breeze certainly qualifies as cold-air advection. However, we know that this low-level cold air that blows in typically acts to stabilize the lower atmosphere where we fly, killing thermals. In order to truly understand when cold-air advection is beneficial to thermals, we must have information regarding the exact level of the atmosphere that is experiencing the greatest amount of cold-air advection.

To destabilize the atmosphere, we can either heat from the bottom, cool from the top, or both. Too much destabilization is not always desired, because it can lead to the overturning of the whole troposphere by means of deep convection. This is achieved through deep cumulonimbus clouds and thunderstorms. We want just the right amount of destabilization, to create abundant thermals without overdevelopment.

The layer in which we fly is called the convective boundary layer. In order for cold-air advection to be most beneficial for thermals, we want the advection to occur in the

mid-to-upper layers of the convective boundary layer. The average top of the convective boundary layer varies quite a bit from flying site to flying site. It can be influenced by the elevation of the underlying terrain, the dryness of that terrain, and by the time of year.

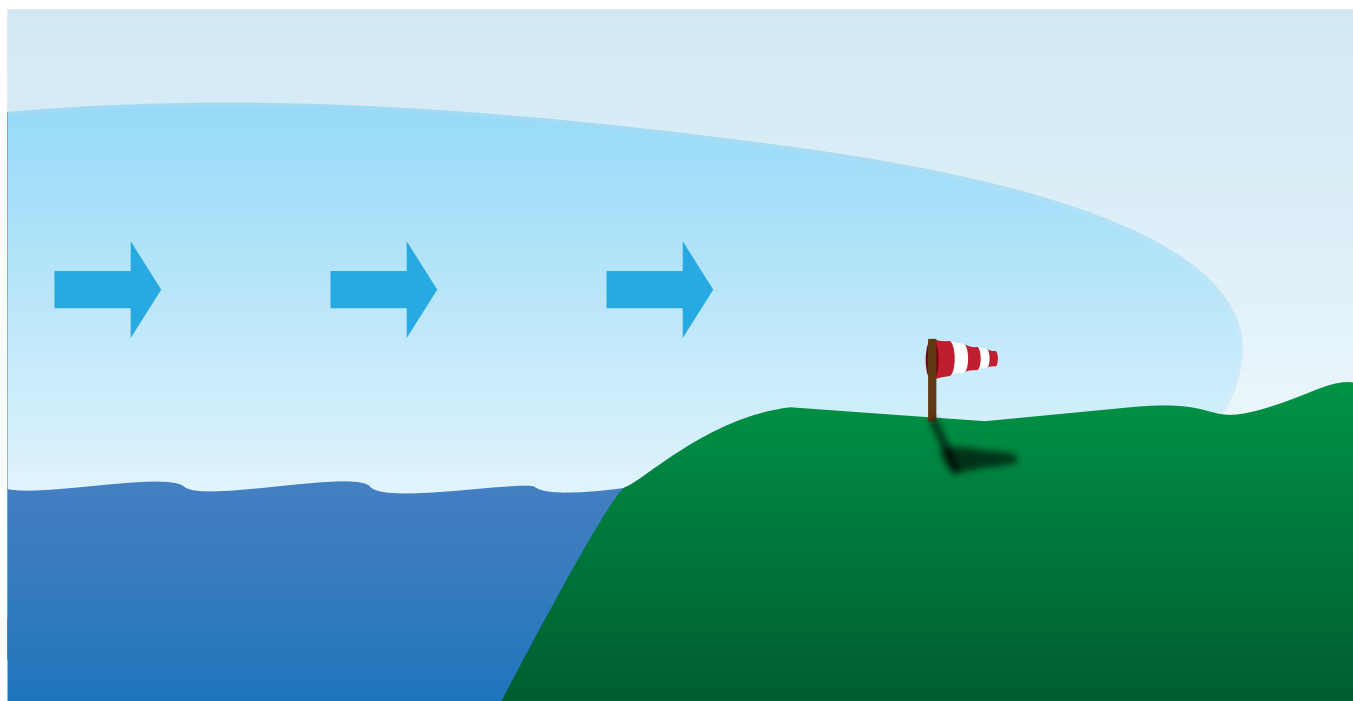
For many low-lying vegetated regions, it is not uncommon to be approaching the top of the boundary layer near the 1500m ASL mark. This is near the height where we reach the 850mb pressure level. Looking at forecast charts that depict both 850mb temperature and wind direction will help determine if cold air is blowing in above your flying site.

In mountainous areas, where it is not uncommon to have top of lift at 3000+m ASL, it would be more instrumental to study a 700mb chart. In high-mountain desert sites, the top of the convective boundary layer can reach the 500mb mark.

Another way of thinking about cold-air advection in the upper parts of the convective boundary layer is as follows: By removing warm

air aloft, less heating is required from below in order to get the same number of thermals. There is only a finite amount of solar energy available for heating the near surface air at a flying site each day. Cooling aloft makes convection more efficient. We can think of this as a *push-pull scenario*.

Disregarding air quality and cloud cover, we should have the same forces creating thermals each day over the heated surface. This is the *push*. Cooling aloft due to cold-air advection in the upper levels of the boundary layer works to steepen the lapse rate, the rate at which temperature decreases with height. This is the *pull*. Thermals will start earlier and be more abundant under such a push-pull scenario. If warm air advects in at the upper levels of the boundary layer, we get a push-push scenario. The advection is acting to stabilize the convective boundary layer and the same amount of solar heating yields fewer and less frequent thermals. On *these* days, it is best to attend to life's obligations and responsibilities. 🇺🇸



Competition Flying

It's like an extra credit course
in your favorite field of study

by C.J. STURTEVANT







Those who don't compete on their hang glider or paraglider (and that would be most of you reading this magazine) often imagine the comp scene as a long week of high stress, fierce rivalry, scary launch/flight/landing scenarios, exhaustion—in other words, lots of money spent on not so much fun. Why, you might wonder, would anyone want to do that?

Well, those of you who DO compete can vouch that it just ain't like that (at least not so much, not any more)! You can make it stressful if that's your thing, but you'd have had to work hard (or have flown with your brain turned off) to have put yourself into the high-adrenaline danger zone at the 2018 Quest Air Hang Gliding nationals. I haven't been to a hang gliding comp, as competitor or crew, in decades, so when editor Nick asked me to write about last April's comp at Quest Air, I reached out to several of those who were there to get their impression of the week's events. Their responses almost made me want to drag these old bones and my mini-Falcon back into hang gliding competition!

Just over 100 pilots (52 US, 51 from the rest of the world) joined the fun last April, along with probably as many or more meet organizers, tug pilots, volunteers, spectators, photographers... Ten pilots responded to my requests for their input. Their hang gliding experience ranges from only a few years since first taking lessons, to decades since that first flight, some with a break to raise kids or deal with work/school/health-related responsibilities, some who've

made competition flying a major focus of every hang gliding season. For some it was their first comp; others, they've lost count.

What drew 103 pilots to Quest Air to compete in the 2018 US Nationals last April? Their motivations might surprise you. Here's what a few of those 103 had to say:

John Simon, a 14-year hang gliding veteran with a couple dozen comps over those years, started out in Sport class a



ABOVE Portrait of a no-fly sky. **TOP** Quest under the wings of a Dragonfly. During any competition this place really comes to life with people, gliders and vehicles found at every corner of the park. **PREVIOUS PAGE** There's always something to look at out on launch, whether it be in the sky or on the ground.

couple years back and now flies his Aeros Combat in the Open class. He likes Florida's weather and flying conditions, and the "LZs make it a safe and stress-free place to fly XC. I like tow comps and low winds that allow for at least some of the tasks to be return style or short retrieve."

Charles Cozean entered his first competition at Sandia, New Mexico, back in the early '90s. His second comp was last summer, at the Midwest 2017 in Whitewater, Wisconsin. "Man, what a change from my first comp, where we had maps on our bar mitts and a camera to prove we'd hit the waypoint and just a radio for retrieve! The technology we have now—the flight instruments, messaging, weather forecasting—really make XC more approachable and fun." He points out that the comps bring local site and weather and flying experts together to engineer the day's best XC task, "and then you get to fly that task with a bunch of really good pilots and a dedicated retrieve. How else are you going to get that? For me, Quest was an opportunity to see the old gang again and dip my toe back into XC."

Gary Anderson learned to fly the first time back in the '80s, but dropped out for a couple decades, until some work-related passes through the John Wayne airport in Orange County, California, re-ignited his passion. "Wills Wing had a display, including a Sport2 and a T2, hanging from the ceiling above the baggage carousel, right at eye level about 25 yards from the security checkout line on the second floor," Gary recalls. "Those two gliders really got under my skin." After refreshing his skills with Rob McKenzie of High Adventure, he acquired his own Sport2 and entered his first comp in the Sport class in the 2016 Santa Cruz Flats Race. The next year he moved up to a T2C and now flies in the Open class. "I attend these events to fly farther and faster, and to really see and understand what is actually possible. I certainly get those two things each time I go to a competition!" Gary enthuses, and adds that the Florida flying was "probably the most stress-free XC I've ever done, AND I got to fly and hang out with some of the best hang gliding pilots in the world. The lessons learned are real and will stick with me."

Glen Volk has been flying since 1978 and competing for 35 years. "I love racing. I love goals, and I love Florida flying," he says. "I am so happy that comps are back at Quest!" He also really appreciates some of the advances in technology: "The Fly

BELOW *World Champion Christian Ciech is first to goal on the last day of the competition. After a long flight he takes a phone call and waits for other pilots to arrive.*

Trackers we used were insane—they are something we should always use. No more downloads from the flight computers!"

Kris Grzyb started hang gliding more than 30 years ago, and has been competing for around 20 of those years. He lives in Chicago and is instrumental in making the Midwest comps happen, so he brings perspective both as a pilot and an organizer. He totally enjoys competition flying, he says, "when I have time and money," and elaborates: "I love to fly with all my domestic and international friends, and I also love making new friends." And then there's the weather factor luring him to Quest: "The flying season opens in April in Florida, but it'll be a month or more before we're flying in Chicago."

Sara Weaver has been hang gliding for just five years, and flew her first comp (the Green Swamp Sport Klassic, at Quest) in 2017. She's set a personal goal of "competing in every sanctioned Sport-class competition in the US this year." She flies a WW Sport3, loves flatland thermal flying and aerotow, and "I absolutely love the competition community! I always feel like my brain is about to pop by the end of the week because I've learned so much and made so many new friends!"

Stephan Mentler started competing in Sport-class events in 2011, and moved up to the Open class in 2016. Family responsibilities grounded him for about 15 months, but he's back now, flying a kingposted Icaro MastR in the Open class. Florida, he says, "is a great stress-free place to compete. There is an abundance of large and safe landing fields, which allows a pilot to focus on the sky, and while you always need to retain situational awareness of the terrain, you'd have to work hard to put yourself in an unsafe situation (i.e. low and over an unlandable area)."

Richard Milla has been flying since '93, currently on a U2, but he just bought a T2C. He competed in last year's Green Swamp Klassic, and found he really enjoys the "set-up and ease of flying" in Florida.

Davis Straub, along with his wife Belinda, organizes and runs many of today's US hang gliding comps.





ABOVE *Preparing for launch | photos by Tony Mercado.* **BELOW** *Bobby Bailey owns the most iconic dragonfly in the sport of hang gliding. The faded purple color and the hum of the engine can be noticed from a mile away. You can catch Bobby on the regular finding some shade under his wings.*

Davis has been flying since the early '80s and has accumulated more than 5000 hours and over 100 comps around the world since then. Currently he flies a WW T2C 144. He came to Quest because, well, "we're running the thing!"

Zac Majors started flying in '92, competing in the mid-late '90s, but didn't get serious about competition until 2007. He currently flies a Wills Wing T2C 144, and he came to Quest to win. He was successful!

While miles flown and standings and who beat whom are hot topics of discussion during any XC comp, those statistics were typically not the strongest memories pilots brought home from Quest. When I asked pilots about their "most memorable" flights, their criteria for "memorable" varied widely. Gary, for instance, uses "lesson learned" as his defining focus: "I was pretty happy with my 'middle-of-the-pack' results at the pilot briefing on the last day. The final task had really good weather and clouds, and at 127 km (79 miles) it was the longest task of the week. Because of how the launch order is determined, I launched in the middle

of pack and right behind Christian Ciech. I unpinned and quickly made it to cloudbase with Christian and about 50 of my closest hang gliding buddies. The cloud suck was strong—not scary, but strong enough that we were all flying pretty fast and sometimes skirting up the sides of the clouds to stay out of them.

"About 10 minutes before the first start window I noticed that I had drifted to a different set of clouds from the gaggle so I decided I needed to rejoin them before they all took off. So I pulled my VG tight and set a course directly for the gaggle. There was a blue hole between us, but it was not that big. I was fine for the first few minutes of that glide, but towards the center of the blue the sink increased. I changed my line to the left, then to the left again and again but no luck; the sink continued. By the time I reached the clouds on the other side I was around 1200' msl. No problem—there was a little texture in the air and I was confident that I could find my way back to the clouds. I fly in the Western mountains and high desert where the air has lots



RIGHT Pilots discuss conditions and safety on launch under Zac Majors's wing. This day was not favorable for wind direction and speed. Lots of pilots shared their concerns and in conclusion Sport-class task was canceled.

of texture and the thermals, especially down low, are very pronounced. You might not be able to core them, but you can't miss them.

"On this day, Florida was not like that. I worked weak lift for 10 or 15 minutes, going up and down between about 1200' and 2500', before I was joined by three other pilots. They worked the same area for about five minutes then went on glide back to Quest for a restart. I should have done the same, but 'restart' was not in my vocabulary. Landing is losing—at least that's the way I used to think. Ten minutes later I was on the ground a few miles from Quest. You cannot restart unless you land back at the airpark. I was done. I sat on the side of the road for a few minutes and just stared at the clouds. It was bad enough that my score would tumble but those clouds really hurt. It was as if I were playing golf on a beautiful spring day and got a bogie so someone took away my clubs and made me watch. Uggh!" Gary lists a few of the lessons he learned from that flight: "Don't fly alone, stick with the gaggle; blue holes are bigger than they look; landing and relighting is NOT losing..."

Glen wasn't sure if I was asking about the most memorable flight of the comp, or of his entire flying career. "If you mean the comp," he says, "I liked the first day because it looked like a marginal day. The air was like butter and it was a super-fun short flight. (Although honestly, all of my flights at this meet were super fun.) The last day's task was the longest, and I liked having to come back a ways from the last turnpoint. I love flying through the Lakeland area—it amazes me to see how good the lift is there, with so much water. I watched two guys thermal across a really big lake. I thought they were high and climbing but then as soon as they were on the other side they turned and landed. Whoa! I guess my perspective was a bit off! Their sphincters must have been pretty tight in the middle of that lake because they could not have been that high."

John, like Gary, recounts memories of making mistakes or overcoming adversities. On the first task day, which he describes as "super low and weak and blue," the task committee called a short zigzag to Wallaby for the Open class. "I don't think I got above 3000' until the last climb—my first three climbs topped out at 2200', 2500' and 2300' feet. Gliding to the next blue thermal at that altitude was close-contact flying and really got my attention. I was below 2000' for much of the ride, in the blue and often alone. Wow, intense and rewarding!" Then there was the last day, which,



he says, "I totally messed up. I blew the start, letting Nene blast out in front, then I got low and took the late 3rd clock all alone (or so I thought) and flew alone until I was joined by a few others 30 or 40 minutes later. Being in front (of this clock—i.e. I could not see others ahead), I pressed on and continued to err, flying initially in nice clouds but then blundering into a blue hole half-way to goal and barely staying up. Going far to the east, I separated from all other (smarter) pilots, as they went west. I flew alone and crossed another large blue hole to finally arrive at the last turnpoint, where I found OTHER PILOTS, plus clouds!! Wow, so happy! I finally tapped the TP and went to goal, getting in very slow and very happy."

Kris is clearly a man of few words—or perhaps his brain is too chock-full of memories to pick out one as "most" noteworthy. "Each flight is memorable!" he says, but then elaborates slightly: The first task sticks in his mind because he "bombed out when conditions were very weak (max altitude 2500') but the rest of the week went well for him. "All remaining tasks were good memories! I made the goal with good time."

Zac's favorite task was the last one. "I had won the previous day, by enough to put me into 1st over-all just ahead of Christian, which meant I just had to fly solid and not screw up. At the first clock I was in reasonable position to start, but I knew the day was still getting better and I couldn't find Christian, so I decided to wait. When the second clock came around I was groveling low, so clearly I couldn't start, right? Well, 20 minutes later at the third clock, I was only slightly higher, so those first two clocks were looking a lot better in hind sight. Kevin Carter and I finally pushed out, and had lots of pilots in front of us. The day was a near-constant game of hop-scotch with the pilots and clouds



LEFT *There was a great turn out of international pilots this year at Quest. Here is Team Venezuela catching some shade under the hot Florida sun and discussing the day to come.*

in front of me. I had given up all the lead points, so speed would have to suffice to save the day and my comp. Racing into goal with several flex-wings and right behind the rigid wings, I didn't see anyone there... until I walked far enough to find Christian breaking down alone, behind the building. He had taken that first clock farther east, where I couldn't see him, and charged the course alone like a champion. He had won the last day, but I could still hope it was close..."

Davis cites the "cross-wind task to Chalet Suzanne, flying upwind against a strong wind perpendicular to the course and climbing while gliding" as most memorable. He didn't mention whether he made goal, so apparently to him it was the journey, not the destination that was of interest this time.

Richard's most memorable—and most challenging—flight came on the practice day, before the comp even started. "I got low about nine km from Quest but got back up enough to get back to Quest. That's the only out-and-return I've ever done!"

Sara really enjoyed what she calls the "tomahawk task" on day 2. "The Sport class had three waypoints, and returning to Quest was goal. Any day where a triangle (or similar task, like this one) is involved, I am so happy. These tasks are HARD! You're pitted against the wind in a different way after each turnpoint, and the mental power it takes to stay up long enough is exhausting. I love the challenge! Also, the Sport-class task overlapped with the task for Open, so we were flying together most of the time I was up. The gaggles were the biggest I'd ever been in, and it was so fun darting around and moving with the other pilots." Zac also found that task interesting, "because we flew over Quest on the third leg, which I think people enjoyed watching, and then we raced back to finish in front of them."

Stephan cites the task on the last (flyable) day as his most

memorable: "It was good, then bad, and then good again. The good: a low save (around 400' AGL) over Seminole Glider Port, thanks to some vultures that showed me the lift. I climbed to cloudbase—albeit it took me a while. The bad: It was a windy day and I did the rookie mistake of landing too close to the leeward side of trees, got caught in rotor and power whacked. The good: It was Wallaby Ranch and I got to say hello to Mike B., was offered beer by Malcom, and met some new pilots, including a couple from the northeast who had run over to make sure that I was OK after my, well, can't really call it a landing..."

Clearly, not all fond memories from a comp are related to the scores and standings!

I asked these pilots what they're taking away from their week of competing at Quest. Gary (of the "uggh!" memory) says, "Objectively, the 2018 Quest Air Nationals was a big success for me. I did probably the most stress-free XC I've ever done, AND I got to fly and hang out with some of the best hang gliding pilots in the world. The lessons learned are real and will stick with me. Subjectively, I still see that gaggle on the other side of the blue hole, I still see those three other pilots heading back to Quest and I still see myself sulking on the side of the road staring up at those clouds. I am signed up for the 2018 Big Springs and Santa Cruz Flats Race where I will apply a few of those lessons."

Glen says, somewhat ruefully, that even with his decades of comp experience, "I am always re-learning to hang in there. I had a 400-foot (or so) save..."

Sara, who flew in her first comp last summer and whose "brain is about to pop by the end of the week," provides some details of the brain-popping experiences. "I learned some really valuable technical skills during this competition, including how to adjust the tension on the leading-edge and tip-wand levers on my Sport3. Before the competition, Jonny



LEFT A group of happy pilots enjoy their healthy preflight lunch prepared by the Retrieval Goddesses. **RIGHT** Majo and Zac hamming it up on karaoke night | photo by Tony Mercado.

Durand casually asked me how my pages were set up in my 6030. That question led into an impromptu two-hour clinic to hone my vario-reading skills. I also participated in Mitch Shipley's landing clinic using his Elektra Tow system. I learned so much about the technical aspects of landing and as a group, we evaluated nine of my landings. That clinic played a pivotal role in helping resolve my landing anxiety."

Besides developing her technical and landing skills, Sara has been "intently focused on improving my mental endurance during these long competitions. Usually, I find myself riding an emotional wave of great successes and terrible losses and it really wears me down by the end of the week. During this comp, I asked so many pilots how they cope with the ups and downs. It seems like the pilots with the most level heads typically do well, and I latched onto that with my whole being. I had one single goal all week: Be happy. From what I can tell, it worked this time! I had no crazy rollercoaster moments, and I believe my performance reflected that."

Richard strengthened his awareness that "keeping an eye on what other pilots (and birds) are up to, with everyone spreading out to map the sky, can lead you to better lift, a better line on glide. There are big benefits of flying other people... Patience and perseverance are key, sometimes offering the reward of finding a massive climb!"

Even though I didn't contact Charles until several weeks after the comp had ended, he still finds his experience at Quest truly amazing. "Being able to fly with some of the best pilots in the world is awesome! I pay a bit of money, show up and now I can learn from and fly with these guys? Ridiculous!"

John goes to comps "for the people (and the beer). Really, the flying in Florida is great and consistent and soft and smooth and safe, but when all is said and done, without all

the great people it would lose its appeal over time. Flying and BSing with all the pilots and drivers and tug pilots and volunteers every day is what makes it great. Each year you meet new people and that alone is so enriching it's worth it. Plus, there are reunions with folks you've not seen in years. We all love to fly, but even though many probably don't consciously acknowledge it... it's the people that make it." Zac also cites "our community" as a major appeal of the comp scene, and adds, "so opportunities to hang out in the evening are great; the karaoke night was a fun chance to get silly and have a laugh together."

Because USHPA is strongly focused on improving safety in all aspects of free-flight, I asked these competitors for their take on the safety features of the Quest Air nats. With no exceptions, all were favorably impressed. "The safety issue was raised every day during pilot meetings," says Kris. John gets more specific: "The last day was marginal; many thought it could have been a fly day and at many sites it would have been. At Quest, west winds are more restrictive than the other directions... 20 is OK from the north or south, but west winds can be nasty at 15 or less. We didn't fly, even though the sky looked good, but T-storms came later and the wind was never really great. Most would probably have launched fine, but IMHO not all, and that's not acceptable. We cancelled and it was a tough but good call. Also, they cancelled the Sport class on a day that was marginal as well, while the Open was allowed to do a task... great call."

Sara was also impressed with the Safety committee's call on that last day: "Many Open pilots had launched (several dangerously), and there was a heated debate on launch about whether the Open class should be canceled. Some pilots were pushy to fly; others were angry that launch hadn't been closed during the gustiest conditions. As I watched all this, I made the decision not to fly that day



LEFT Bird's-eye view of the launch lines shows how much organization goes into these competitions.

unless conditions improved. It was the first time I'd ever grounded myself and accepted a 0 score. Twenty minutes later they canceled the Sport class anyway, so I felt even more confident that my decision had been the right one."

Charles appreciated the conservative decisions of the Sport-class Safety committee. "They canceled several days even when we could have flown, I think. But most of us weren't keen to fly the conditions anyway." He recalls a time back in his early hang-gliding days when some of the tow parks required pilots to have wheels or skids on their gliders, and feels it would be a significant safety enhancer. "I never flew with wheels until I had to, and then I grumbled about it. But now I won't tow without them. I'd love to see an estimate of what glide penalty we pay for the streamlined wheels—I'd guess it's quite small, and knowing that might encourage more pilots to fly with wheels—at least in the Sport class."

Stephan was also impressed with how safety always seemed to be a major driving factor in the day's flight plans. "The Task committee called challenging (e.g. upwind, crossing, etc.) but safe (always proximate to safe landing areas) tasks. We had a great Safety committee who judged the conditions well and had no problem calling the day if it appeared that it would be unsafe. Our weather person, Larry Bunner, provided each day's forecast (e.g. wind speed, direction, chance of precipitation, and T-storm)—micro-meteorology and meteorology are big safety items that I think are often overlooked by pilots. The general attitude of the organizers, pilots, crew—everyone!—was, this comp is for fun! Pilots were free to make the choice NOT to fly, no questions asked. You don't always see this in non-comp environments. And Davis provided a pilot briefing document ahead of the competition that included general orientation to the site, safety procedures, and even imagery."

Glen probably has the widest experience with safety in comps over the years, and is quite impressed with the focus on safety in recent comps. "I don't think we can ever eliminate accidents completely," he says, "but I've been competing for 35 years and it's never been better than it is now."

So, there were a few days during the comp when flying activities were canceled. Fortunately, there are plenty of other options beyond chucking rocks at alligators, and many pilots put their "down time" to good use. John says he and a dozen others went "mountain biking" on one day (Really? Mountains in Florida?), and took another of the no-fly days as family time, as did Richard (who suggests a trip to the Cornerstone Grill in Lake Alfred would be totally worth your time). Kris (who's from Chicago) took advantage of the opportunity to visit the nearby NASA sites, and highly recommends other "foreigners" do so if they get the chance. Zac drove to try to see the SpaceX launch, which "ended up being scrubbed because... it was too windy."

For Sara, at least one of the no-fly days was as brain-popping as the task days. She describes a trail run with several of the top-ranked pilots in the world: "Most of our conversation revolved around competition mindset. We talked about how to stay cool and roll with the punches, about both mental and physical endurance and what it means to be an athlete in this sport. We discussed why there are so few women in hang gliding and whether or not that could change over time. I got a small peek into the brains of some of the best hang glider pilots in the world, while I was doing one of my favorite things—running! It was," she says, "one of my favorite experiences of the whole week."

Stephan describes himself as "a dessert guy"; luckily for him and other like-minded pilots, Clermont offers some excellent options for satisfying the ice-cream hungries. "It was Brusters Real Ice Cream one day," he recalls, "and Ritters Frozen Custard on another where, I believe, Jonny D tasted his first-ever frozen custard."

Davis (who's in charge of these details), says, "When there is a competition at Wiltree Park (Sheet airfield, Quest Air Soaring Center), it is accompanied by parties, lots and lots of parties. Because we have a central site for everyone to rally around, people hang out at the 'Out of Control Bar' and soon the party happens. Add to this, John Simon hires a club entertainer/DJ/karaoke, and it is amazing that anyone can fly the next day. Thankfully the most out-of-control party happened after the awards ceremony."

Finally, I offered these pilots an opportunity to give a shout-out to anyone who made their experience at this

comp particularly rewarding. Well! I could create an entire article from their enthusiastic responses! Everyone put Davis and Belinda, the tug pilots, and all the volunteers and drivers at the top of their list, but they didn't stop there.

Davis, from the perspective of both organizer and competitor, elaborates: "We were well prepared to handle all the demand, and the Bailey-Moyes Dragonflies and Gregg Ludwig's trike got pilots launched very quickly. Because launch was so efficient, getting all pilots in the air in less than an hour, very few pilots chose to go in the 'early bird' slot, and many chose to go to the end of the staging line." He adds Russell Brown and Zhenya (the scorekeeper) and Tony Mercado for handling the trackers, and Belinda for being the meet director.

Glen adds "the guys who bought Quest and made it possible. For sure Spinner—he was launch director and basically runs the airport—really great with helping out in all aspects of the comp. Tony the scoring guy who handled the trackers."

Charles singles out "Kevin Carter and Zac, at the risk of excluding so many others. They were just over-the-top helpful with flying and glider and instrument tips—even test-flying our gliders and offering tuning advice."


Gary's kudos includes his driver, Linda Salomone. "She was part of the volunteer launch crew and she is the one who told me to stop listening to the launch line chatter and go figure out the conditions for myself. Great advice!"

Kris, like Davis, is a meet organizer as well as a competitor, and like Davis he really appreciates the experienced tow pilots. "They always take care of hang glider pilots and their safety. They really know what they are doing! (I know a lot tow pilots, but these were the best!)"

Sara thanks "Jonny and Christian for making my brain a tiny bit bigger, to Kendrick Stallard for your humor and camera talent, to Dave and Steve at Wills Wing for your guidance on the Sport3, to Philippe and Fabiano for your mad frisbee skills, to John Blank for helping out in a million different ways, to Belinda for low-key being the most talented woman in the hang gliding world, to Davis for everything you do behind the scenes, and especially to Heather Renihan for helping me to stick those GD landings!"

Richard includes in his list "all the world class pilots (especially Zac, Jonny D. and Christian) who were happy to share their experience and knowledge with us aspiring Sport-class pilots, and my wife, Angelyn Zephyr, for her support and retrieve."

Zac sums it up well: "Our community works hard to make comps like this happen, so the list is long: Belinda and Davis, Quest and the Tug pilots, but especially the volunteers and drivers! My wife Majo makes the world go 'round!'"

Some closing thoughts: If all this talk of low-stress, high-satisfaction, brain-popping fun has piqued your interest, check out the Calendar pages in the back of every USHPA mag, or the online comp calendar at <https://www.usHPA.org/page/competition-calendar>. Local clubs and chapters often hold fly-ins and comps that are perfect for anyone just getting started in XC flying. Don't wait till the last minute, though, especially for the sanctioned events. Charles reminds us that "the Quest comp (and I think the other US comps), filled VERY quickly—like in a day or two. I've heard that it wasn't so long ago that comps were tough to fill. I'm guessing lots of pilots couldn't participate this year, which is a shame. For a guy who mostly likes to just fly the tasks vs. the racing aspect, I worry about taking a spot from someone who has the fire to compete—especially the younger pilots. I hope the comp organizers can noodle on expanding comp opportunities." 

SPORT CLASS RESULTS

1	Andrey Solomykin	Aeros Discus 14
2	Charles Cozean	Wills Wing U2 145
3	Rod Regier	Moyes Litesport 4
4	James Race	Wills Wing U2 160
5	Sara Weaver	Wills Wing Sport 3 135
6	Douglas Hale	Moyes Gecko 155
7	Makbule Baldik Le Fay	Aeros Discus 13B
8	Nick Jones	Wills Wing U2 145
9	Rich Reinauer	Wills Wing U2 145
10	Lee Silver	Wills Wing U2 160

OPEN CLASS RESULTS

1	Zac Majors	Wills Wing T2C 144
2	Christian Ciech	Icaro 2000 Laminar 14.1
3	John Simon	Aeros Combat C 12.7
4	Sandy Dittmar	Wills Wing T2C 144
5	Jonny Durand	Moyes RX 3.5 Pro
6	Alvaro Figueiredo Sandoli	WW T2C 144
7	Bruce Barmakian	Aeros Combat 12.7
8	Glen Volk	Moyes RX 3.5
9	Krzysztof Grzyb	Moyes RX 3.5 Pro
10	Malcolm Brown	Wills Wing T2C 144



Ridge Soaring Lore

Part 401 | Advanced Strategies

by DENNIS PAGEN

Most pilots are very familiar with ridge soaring, so it may be considered presumptuous to even write about tricks and techniques to perfect the practice. However, new pilots and those pilots flying in flatlands with tow launches may not have much ridge-skipping experience. Also, even wizened wind warriors may not have experienced all the nuances that varied sites, shapes and conditions offer. So we'll continue

this two-part ridge soaring series with more advanced strategies for using ridge lift.

LIGHT LIFT

Many, many times we attempt to ridge soar when the wind is right at the borderline for staying up. Last month we touched on this matter, but with the warning that new pilots should use caution and allow plenty of clearance. Here we'll assume the reader has the experience and judg-

ment to keep good control speed and stay away from clutching branches, bushes and boogies. That being said, the best sink rate comes at the slow end of our speed range—very near stall. So the strategy most effective for milking the weak stuff is to use varying speed.

First, launch with plenty of energy. In a hang glider this means not getting the nose too high so you can run as fast as possible with maximum energy in the system. Many

times I have seen a slow launch followed by a required dive to gain needed airspeed, which loses 20 feet or more right off launch. Often in weak conditions, game over. Do not think that a fast launch loses altitude, for any excess speed above stall can be cashed at the altitude bank by slowing to the proper speed in the lift. In a paraglider, the same thing applies. A good torpedo launch with the body leaning forward injects more energy into the system, which can be paid off for altitude once you are settled in.

In all cases, when there are holes in the lift (varying ups and downs created by heat bubbles or pulses from the upslope flow), it is good to vary your speed according to the ups and downs. When I am seriously scratching close to the trees or terrain I keep my speed between minimum sink and best glide, for control. Then, when I encounter a patch of better lift, I slow down fairly quickly, but smoothly, to eke out all the temporary lift potential. To do this continued adjustment most effectively, I try to anticipate a bump of lift by watching for signs of leaf activity, birds auguring up and other pilots getting bumped ahead of me. The whole procedure of slowing down is dynamic in the sense that as it happens I am deciding how much to slow (all the way to stall if it is smooth and building, or seeming to extend for quite a ways). At the same time I am assessing the lift to decide if I should turn in it. If I decide to turn I may only go 180 degrees. If the lift continues and I have the clearance, I may bring the turn into a 360 and hopefully stay with it to climb as much as nature allows. However, many times any heat bubbles available are weak and not enough to sustain flight. So I bleed them of all the height I can get and

continue on my way, usually resuming my previous good control speed between min sink and best glide.

In any case, as mentioned last time, long passes are the necessity on weak days, all things being equal (that is, there is no particular hot spot). Still, when it is time to turn back to go the other way it makes a world of difference if you can turn in a patch of lift or zero, rather than sink. Turning in sink on a seriously weak day may also mean "game over."

A final point to serious scratching conditions is that it may be necessary or efficacious to launch in a turn, or angled to the downslope (fall line) in order to stay in the lift band that is hugging the hill. I have had this experience in sites as varied as the Nags Head sand dunes, Henson's Gap, TN, and Hyner View,

PA. Not all sites allow this trick, but it has its uses, especially on low dunes. In all cases, it may be necessary to observe wind cycles coming through launch and launching in a good wind period, even if it is only a few extra miles per hour.

FACE SHAPES

There should be no doubt that the mountain shape, size and length perpendicular to the wind affects its soarability, as mentioned last time. In general, we know that a higher, wider, steeper slope provides the best ridge lift. Bare areas or rock slides are also lift promoters. However, there are some exceptions. At a couple sites I fly, in light conditions I usually head to a section near launch that is a bit lower. The reason for this strategy is so I can get above the ridge, which usually



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FIGURE 1.- INCREASE OF LIFT NEAR PEAK.

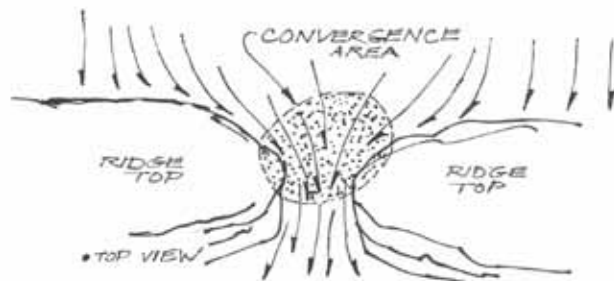


FIGURE 4.- CONVERGENCE IN GAP.

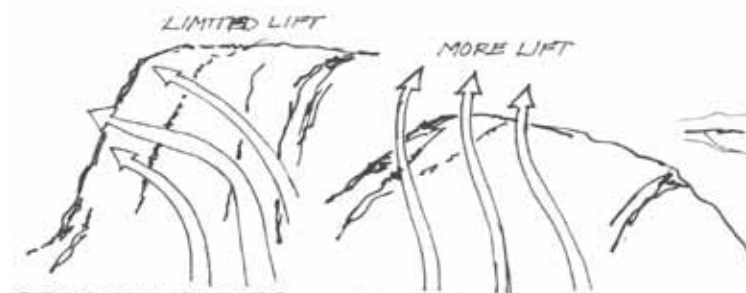


FIGURE 2.- SLOPE EFFECTS IN CROSSING WINDS.

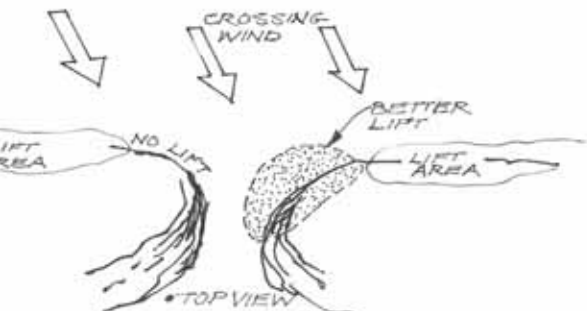
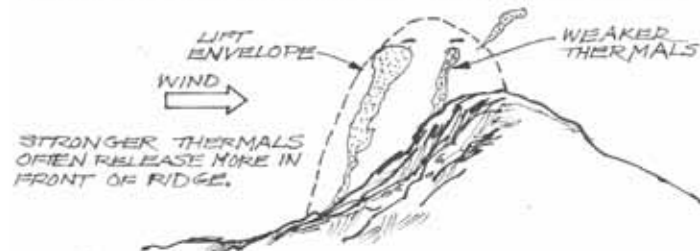


FIGURE 5.- LIFT AREAS IN CROSS WINDS.



FIGURE 6.- IMPROVED LIFT IN LIGHTER WIND.

provides better lift than down along the slope. Also, being a bit above or nearly above it often allows me to circle in any weak thermal coming through. Even without thermals I find best luck being nearer the top of a ridge, partially because the wind will be forced over the lower section more if the ridge has higher sections nearby. This is the less-is-more principle. Of course, in stronger, good-lift days all you have to do is point and shoot, but on weak days we try to up the chances by any assistance to lady luck we can manage.

In many cases, a peak near a ridge will not be as ridge soarable as the lower lying ridge beside it (although it may be the thermal generator).

This is the case at Monte Cucco (the Italian site of numerous meets) as shown in figure 1. Here we see that the wind is channeled around the mountain to increase its speed and the soaring prospects at launch. This phenomenon takes place at many other sites to different degrees—these increasing wind spots may be the place to be on a cross-country flight when thermals have diminished.

The above brings up another situation: When the wind is crossing, the steepest or highest hill, ridge or mountain may not be the place to be, for steep hills and cliffs deflect the wind flow more sideways than up over the ridge. Figure 2 illustrates

this principle. The more cross the wind, the more the steeper slopes shed their ridge lift. I use this principle when flying cross country to decide where to best hit a hill or mountain to seek salvation lift.

POSITIONING

Probably most readers have seen the lift profile illustrated above and in front of a ridge (we showed this in figure 1, last issue). On a reasonably good day there are some options as to where to find the best thermals attached to the ridge lift. Broadly speaking there are two main plays: You can stay well back from the front where the lift band goes highest, or you can stay more out front

where the possibility of stronger thermals presents itself as shown in figure 3. Stronger thermals break free of the mountain as they rise, so they tend to be more in front than their weaker companions. Many of us have experimented with these prospects, often with pilots at different points at the same time. I find that occasionally another pilot will find a juicy thermal out front and get a bit higher than those staying back, but the chance of finding a thermal out front is significantly lower than in the main lift and the pilots staying back tend to remain higher on the average. In fact, in wind thermals tend to be strung out parallel to the flow so that those who stay back can usually encounter the thermal breaking off in front of them, albeit a little later. But then they can track forward into it and work multiple cores. The pilot out front may only have the main core to work, which ultimately may not

“When you are going along a ridge you are flying essentially perpendicular to the wind flow, and such a crosswind track is the direction hardest to locate thermals.”

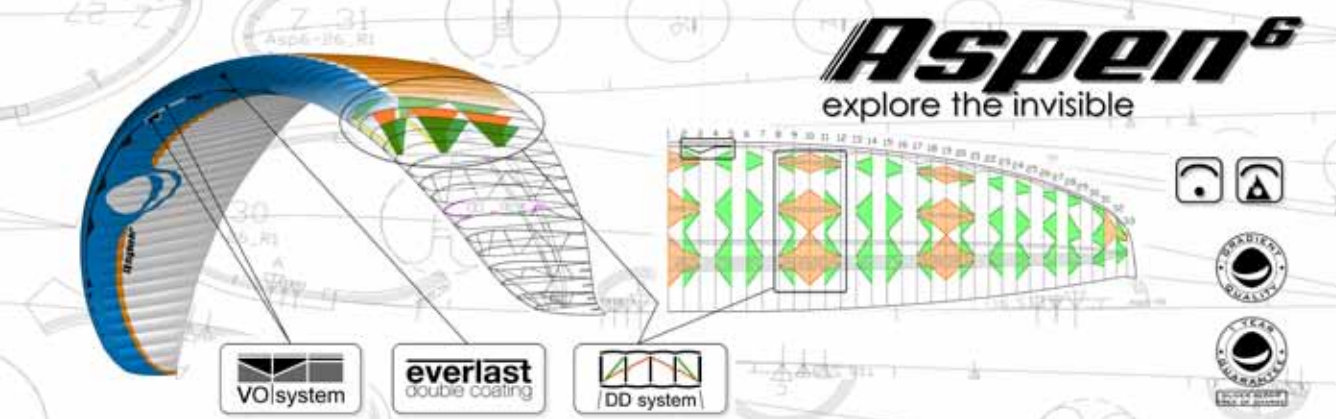
get him/her as high.

Of course, there are variations on this theme, but the plan I have found that works best, accounting for the law of averages, is to stay along the ridge top, with my downwind wing just about where the slope breaks to flatten out, as shown in the figure. Stronger thermals may exist out front a bit, but many more encounters occur further back. Every day is different, and if pilots out front are having more success at finding thermals and getting higher, I'll be out there joining them. If I am ridge soaring alone, I don't have much data and will stick

to the known lift on the ridge top. Remember, when you are going along a ridge you are flying essentially perpendicular to the wind flow, and such a crosswind track is the direction hardest to locate thermals.

CROSSING GAPS

Along our Eastern ridges, and in most places, there are gaps, saddles, ravines, low benches or unlandable stretches to cross when flying along the ridge. Gaps are a special case, and our strategy for crossing them depends on the width and openness of the gap. In about 50% of the time I cross a gap (that's hundreds



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of times), I encounter a thermal or buoyancy in the gap—the crossing is a no-brainer. That's because there is convergence in the gap as shown in figure 4. This convergence is the buoyancy effect, but also promotes the rise of thermals.

However, we can't depend on meeting a thermal, so the general safe strategy is to patiently gain altitude before the gap, or other possibly unreliable area before attempting to cross. Of course, we cannot expect that lift will be right where and when we want it, so there's times when we have to pass back and forth on the ridge waiting for a thermal to take us high enough to make a crossing. It should be noted that often we are ridge soaring when the wind is a bit crossing on the ridge. In that case, if we are heading upwind, there may be a good area of ridge lift right

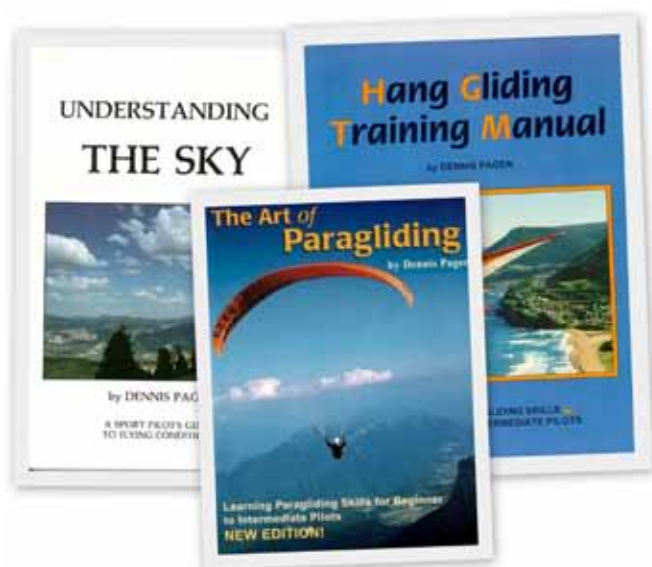
at the edge of the gap as shown in figure 5, but then we have a bit of a headwind as we proceed across the gap. Conversely, if we are going in the partially downwind direction we may have to get all our altitude a ways back from the gap, but then we have a crossing tailwind factor to help us across. And then, as we are almost across the gap we usually find the ridge lift picks back up before we get there. In my experience, I find that it is easier to cross in a downwind direction than upwind. If a gap is quite wide, it may be best to fly out a bit upwind before crossing to avoid being pushed back into the gap by the venturi effect if you get low.

Another factor to note is that if you try to remain high all along the ridge you will progress much slower along the ridge, than if you stay down in the best ridge lift, zooming

along, and then stop where necessary to gain height for the gaps. We learned that matter way back in 1978 at the American Cup at Lookout Mountain, TN, where pilots who zoomed along but stopped where the lift was good when needed won the ridge race.

READING LIFT SIGNS

Often conditions vary along a ridge, and it is important to pay attention. You can watch what to expect by the experience of other pilots around you. Also, if you are near launch or the landing field you can watch the wind indicators to see if the wind direction varies. It often does over the long term due to general synoptic movements, or on the short term due to thermal cycles. If there is a choice, you can position yourself to survive any bad cycle. On the other hand, if you are detecting cycles that



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are occasionally weak or sinky, you may wish to stay higher in general to outlast the sink.

Many times the lift on a ridge is affected by cloud street effect—even when there are no clouds, especially in the East. In fact, there are times when the wind is quite strong on the ridge but only sink is encountered. Sometimes you can see the leaves on the trees are extremely active, but often they are being blown by strong sinking air between the streets, and may even not represent lift at all. On days such as this, the only way to proceed along a ridge, or even stay up, is to assume there are huge gaps in the ridge and get high where you can and cross to the next lift band. Many times in meets and free flying you can see pilots hit the deck when ridge lift should have been reliable.

So a side note to this discussion is that strong wind doesn't necessarily mean easy ridge soaring. It may be that there is an inversion that is squeezing the wind in a thin layer that hits the top of the hill, but not further down, so the air is not really forced up over the hill. Often in lighter winds convergence from both sides of the mountain or upslope flow along with thermals add to the ridge lift more readily, as shown in figure 6. Strong winds do not always mean strong lift, and, if thermals are part of the equation, stronger winds prevent working the thermal effectively.

WONDER WINDS

We all like wonder winds at times, those smooth, evening bullet-proof magic carpets. Sometimes there are light thermals studding the wonder wind lift, but often the best way to handle them is simply float and enjoy the view. A perfect example of such flying occurs at Mt. St. Pierre

in Canada's Gaspé Peninsula—a classic soaring scene above the St. Lawrence Seaway. Occasionally light thermals come through the area, but the way to get highest is to put your VG on (little need to turn), and float in a hang glider. Since learning that technique in the Gaspé, I have used it in other wonder wind encounters at other sites to good effect.

RIDGE SOARING STRATEGIES

In my decades of ridging experience, I have found that the lift is rarely totally reliable. In fact, there are often holes and changes. Generally when it is just pure ridge lift we float along with 200 to 1000 feet above the ridge (typically for a 1000 ft. high ridge). The higher altitude occurs when the air is buoyant.

Of course, this article is not about thermaling, but often when ridge soaring—especially in light conditions or on a low ridge—it is useful to use thermals to supplement the ridge lift. In this case it is wise to place yourself where the lift is best. That means go under cumulus clouds or above a ground feature such as quarries, parking lots, dry fields or any other well-heated surfaces. This rule may seem like a no-brainer, but I have seen many cases where pilots float around low while other pilots nearby are climbing much higher because of positioning.

We may think of flying the ridges as boring soaring, but such practice is rarely just a simple matter of pointing your wing and falling asleep. As indicated above, almost all ridge soaring requires some tactics, planning and skills, including positioning decisions. But even if the ridge soaring is easy, it offers a wonderful chance for sightseeing and learning your glider's effects. Some things to try with your glider are stalls, turn stalls, spirals, maximum

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climbing, experimenting with thermals and beginning XC. One thing I like to do on a ridge is to try to go upwind as far as possible. Of course I need to find strung-out thermals to be successful, but I can always leave enough altitude to get back to the ridge and start over. One exciting thing to do if you live in serious ridge country is to combine ridges. I recall one flight where three of us launched at one site, went 11 miles along the ridge, then over the back, then popped over another broad mountain to reach yet another mountain, then still another, then along that ridge for 20 miles, then back to land after several hours and about 80 miles. That was a fun sight-seeing and site-seeing flight, for we passed above five flying sites, could easily see four others, and crossed over both my former and my current house. Some fun! 🇺🇸

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FLY-INS

JUL 13-15 > Inkler's Point - Chataqua Days Fly-In The 2nd annual Chewelah, WA-area fly-in will be based at the Inkler's Point flying site. We'll venture out to other immediate-area sites to fly as well, depending on wind direction. Inkler's Point is a USHPA-insured flying site. Camping will be available adjacent to Inkler's LZ. This event is being held during Chewelah's Chataqua Days—fun for everyone! Visit the Center of Lift website for updated event information during 2018 :) More Info: www.centeroflift.org.

SANCTIONED EVENTS

JUL 8-14 > Chelan, WA. US OPEN of Paragliding Chelan 2018" will be a Pre-PWC event pending approval of running PWC in July 2019 the week after the Nationals. Volunteers, competitors and spectators welcome. Registration open March 1st 2018. More information at www.300peaks.com, mattysenior@yahoo.com, or 206-420-9101.

AUG 5-11 > Big Spring, Texas. 2018 Big Spring Nationals Series. 2018 Big Spring Nationals Series site of the 2007 World Hang Gliding Championship, the finest cross country hang gliding competition site in the US. Big Tasks (world records), smooth thermals, unrestricted landing areas, easy retrieval on multiple roads, consistent cumulus development at 1 PM, air conditioned head quarters, hanger for setup, free water and ice cream, welcome and awards dinner, live tracking, many drivers available, strong safety record, highest pilot satisfaction rating. More information at www.ozreport.com, davis@davisstraub.com, or 863-207-2634.

SEP 2-8 > Whitwell and Henson's Gap, Dunlap, TN. East Coast National Paragliding Competition. Eastern US Cup. FAI Cat 2. Race to Goal format. More info: www.flying.camp.

SEP 16-22 > Francisco Grande Hotel and Golf Resort, Casa Grande, Arizona. 11th annual aerotow competition with both desert flatland and mountain flying. Primarily triangle and out and return tasks with goal at the Francisco Grande Golf Resort. More information at www.santa-cruzflatsrace.blogspot.com, or contact Jamie Sheldon at naughtylawyer@gmail.com.

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PARAGLIDING TOURS 2018 with USHPA Advanced Instructor and veteran guide Nick Crane. Jan/Feb/Mar - Costa Rica; Jun/Sep/Oct - Europe; Mar/Dec - Brazil. www.costaricaparagliding.com; nick@paracrane.com

PARTS & ACCESSORIES

GUNNISON GLIDERS - X-C, Factory, heavy PVC HG gliderbags \$149 Harness packs & zippers. New/used parts, equipment, tubes. 1549 CR 17 Gunnison, CO 81230 970-641-9315

WINGS & HARNESSES

FLY CENTER OF GRAVITY: The CG-1000 is the original custom fit, single line suspension harness. Built to last from your H1 through your H4. Choose from our list of options to suit your needs and select your colors and special designs to make the harness your own. www.flycenterofgravity.com; flycenterofgravity@gmail.com

PARAGLIDING EQUIPMENT used one time: Alpha 5/28-orange wing, Gingo AirLite MG38, stuff bag, hook knife, and helmet. Paid \$5000.00 new couple years ago. Asking \$2800.00. All offers considered.

SCHOOLS & INSTRUCTORS

ALABAMA

LOOKOUT MOUNTAIN FLIGHT PARK - The best facilities, largest inventory, camping, swimming, volleyball, more. Wide range of accommodations. hanglide.com, 877-hanglide, (877) 426-4543, hanglide.com.

COLORADO

GUNNISON GLIDERS - X-C to heavy waterproof HG gliderbags. Accessories, parts, service, sewing. Instruction ratings, site-info. Rusty Whitley 1549 CR 17, Gunnison CO 81230. 970-641-9315.

FLORIDA

LOOKOUT MOUNTAIN FLIGHT PARK - Nearest mountain training center to Orlando. Two training hills, novice mountain launch, aerotowing, great accommodations. hanglide.com, 877-hanglide, (877) 426-4543.

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LOOKOUT MOUNTAIN FLIGHT PARK - Discover why 5 times as many pilots earn their wings at LMFP. Enjoy our 110 acre mountain resort. www.hanglide.com, 877-hanglide, (877) 426-4543.

HAWAII

PROFLYGT PARAGLIDING Call Dexter for friendly information about flying on Maui. Full service school offering beginner to advanced instruction, year round. 808-874-5433 paraglidemaui.com

NEW HAMPSHIRE

MORNINGSIDE - A Kitty Hawk Kites flight park. The Northeast's premier hang gliding and paragliding training center, teaching since 1974. Hang gliding foot launch and tandem aerotow training. Paragliding foot launch and tandem training. Powered Paragliding instruction. Dealer for all major manufacturers. Located in Charlestown, NH. Also visit our North Carolina location, Kitty Hawk Kites Flight School. 603-542-4416, www.flymorningside.com

NEW YORK

AAA HG & PG Three training hills, certified instructors, mtn launch, pro shop, pilots lounge, camping. North Wing, Moyes demo gliders 77 Hang Glider Rd Ellenville, NY mtnwings.com 845-647-3377

NORTH CAROLINA

KITTY HAWK KITES - The largest hang gliding school in the world, teaching since 1974. Learn to hang glide and paraglide on the East Coast's largest sand dune. Year-round instruction, foot launch and tandem aerotow. 1902 Wright Glider Experience available. Dealer for all major manufacturers. Learn to fly where the Wright Brothers flew, located at the beach on NC's historic Outer Banks. Also visit our NH location, Morningside Flight Park. 252-441-2426, 1-877-FLY-THIS, www.kittyhawk.com

TENNESSEE

LOOKOUT MOUNTAIN FLIGHT PARK - Just outside Chattanooga. Become a complete pilot -foot launch, aerotow, mountain launch, ridge soar, thermal soar. hanglide.com, 877-hanglide, (877) 426-4543.

VIRGINIA

BLUESKY located near Richmond, year round instruction, all forms of towing, repairs, sewing. Representing Wills Wing, Moyes, Icaro, Aeros PG, Mosquito, Flylight, Woody Valley, HES, www.blueskyhg.com

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RATINGS ISSUED MARCH/APRIL 2018

RTG	RGN NAME	STATE	RATING OFFICIAL
H1	2 Marty LaPrelle	CA	Robert B. Booth
H1	2 Maxwell Mileck	CA	Kurtis Carter
H1	2 John Rinaldi	CA	Peter Suchanek
H1	4 Edward W. Wilson	CO	Rusty Whitley
H2	10 Thomas Jaeger	TN	Alan Friday
H2	10 Lionel Lopez	FL	Spencer L. Kindt
H2	12 Timothy Curran	NY	James E. Tindle
H2	12 William Just	NY	Billy B. Vaughn
H2	12 Cory McNiven	NY	Billy B. Vaughn
H2	4 Jonathan Hayden	CO	Mel Glantz
H2	4 John Zyadet	AZ	Luke Waters
H3	10 Alex Poythress	GA	Matthew Taber
H3	2 Alex Bogatko	CA	John Simpson
H3	2 Diego Miralles	CA	Patrick J. Denevan
H3	2 Masayo Miyauchi	CA	Patrick J. Denevan
H3	3 Nathan Fitzhugh	CA	Rob McKenzie
H3	4 Douglas P. Hale	AZ	Luke Waters
H4	2 Majo Gualarte	CA	Zac Majors
H4	2 Saul Richard	CA	John Simpson
H4	2 Scott Untiedt	CA	John Simpson
H4	3 Diego Posada	CA	John Heiney
H4	4 John Ebinger	AZ	Luke Waters
H4	4 Octavio Gutierrez	CO	Mark A. Windsheimer
P1	12 Mim Vogel	NY	Christopher Grantham
P1	2 Sana Amin	CA	Jesse L. Meyer
P1	2 Eric Stackpole	CA	Jesse L. Meyer
P1	2 Terry A. Strahl	CA	Jeffrey J. Greenbaum
P1	3 Erick Aldrich	CA	Jerome Daoust
P1	3 Siddhesh Jagdale	CA	Jc Perren
P1	3 Vijayalakshmi Srinivajan	CA	Jc Perren
P2	1 Craig Kyhl	AK	Jake Schlapfer
P2	1 Trevor Wichmann	OR	Maren Ludwig
P2	1 Mason Wichmann	OR	Brad Hill
P2	1 Donald Wray	AK	Ken W. Hudonjorgensen
P2	12 Richard French	NY	Sebastien Kayrouz
P2	12 Magnus Precht	NY	Joachim P. Roesler
P2	12 Brian Vogel	NY	Christopher Grantham
P2	2 Henrik Bengtsson	CA	Wallace K. Anderson
P2	2 Gregory Elsbecker	CA	Jesse L. Meyer
P2	2 Kasia Hayden	CA	Jesse L. Meyer

RTG	RGN NAME	STATE	RATING OFFICIAL
P2	2 Colin Karpfinger	CA	Jeffrey J. Greenbaum
P2	2 Gabor Madl	CA	Jesse L. Meyer
P2	2 Scott OBrien	CA	Jesse L. Meyer
P2	2 Jimmy Sastra	CA	Jeffrey J. Greenbaum
P2	2 Creedence Shaw	CA	Jesse L. Meyer
P2	3 Ray Cobo	CA	Jordan Neidinger
P2	3 John Fuller	HI	Pete Michelmore
P2	3 Mathias Lundblad	HI	Max Leonard Marien
P2	3 Jason May	CA	Jc Perren
P2	3 Joe Morton	CA	Jc Perren
P2	3 Connor Northend	CA	Rob Sporrer
P2	3 Allen Wilson	HI	Pete Michelmore
P2	4 Bridger Brenner	CO	Galen Anderson, Staff
P2	4 James Drewett	CO	Chris W. Santacroce
P2	4 Patrick Minnaert	CO	Paul Gurrieri
P2	4 Chris Pak	CO	Kay Tauscher
P2	4 Melissa Shaw	CO	Christopher Grantham
P2	5 Rick Morrison	ID	Stephen Nowak
P2	5 Seth Warren	MT	Rob Sporrer
P2	7 Francesco Desantis	IA	Britton Shaw
P2	7 Alan Dolley	MI	Alejandro Albornoz
P2	9 Jeremy Colvin	OH	Nathan Alex Taylor
P3	1 Eric Austin	WA	Christopher Grantham
P3	1 Lonnie Burns	OR	Jon Charles Malmberg
P3	1 Cathy Cunningham	WA	Craig C. Cunningham
P3	1 Ron Fiddle	OR	Rick Ray
P3	1 Christopher Garcia	OR	Kelly A. Kellar
P3	1 Brett Gorbett	OR	Steve Roti
P3	1 Tim Hewette	AK	Stephen J. Mayer
P3	1 Yun Lin	WA	Marc Chirico
P3	1 Paul Weiseth	WA	Justin Boer
P3	10 Robert Henry Fawcett	SC	Hal Franklin
P3	10 Christopher B. Parrish	GA	Luis Ameglio
P3	10 James Stinnett	GA	David W. Prentice
P3	11 Suhas Kelkar	TX	David W. Prentice
P3	2 Christopher Budicin	CA	Mitchell B. Neary
P3	2 Kyle Daniels	CA	Pete Michelmore
P3	2 Michael McCook	CA	Jeffrey J. Greenbaum
P3	2 Tommy Purcell	CA	Jeffrey J. Greenbaum
P3	2 Stuart Ratcliff	CA	Jesse L. Meyer

RTG	RGN NAME	STATE	RATING OFFICIAL
P3	2 Carl Weiseth	CA	Justin Boer
P3	3 Katherine Bristow	CA	Richard Kennedy
P3	3 Louis Coulombe	HI	David (Dexter) Binder
P3	3 Christopher Dewey	CA	Philip D. Russman
P3	3 John Fuller	HI	Pete Michelmore
P3	3 Sarah Lockwood	CA	Rob Sporrer
P3	3 Casey Markham	HI	David (Dexter) Binder
P3	3 Jason May	CA	Max Leonard Marien
P3	3 Luke Neufeld-Cumming	CA	Dave Turner
P3	3 Bradley Stevenson	CA	Philip D. Russman
P3	3 Allen Wilson	HI	Pete Michelmore
P3	4 Adam N. Black	UT	Stephen J. Mayer
P3	4 Julia Kammel	UT	Stephen J. Mayer
P3	5 Neal Baggett	MT	Chris W. Santacroce
P3	5 Leland Earls	MT	Paul Roys
P3	5 Joe Stone	MT	Chris W. Santacroce
P3	5 Paul York	MT	Paul Roys
P3	7 Edward Farrell	IL	Chris W. Santacroce
P3	8 Kris Harrington	NH	Calef Letorney
P3	8 Claudiu Neagu	NH	David W. Prentice
P3	9 John M. Middleton	MD	Nick Crane
P4	1 Petr Gvozdz	WA	Marc Chirico
P4	10 Brian Morris	GA	Marc Noel Radloff
P4	11 Scott Kemp	TX	Gabriel Jebb
P4	12 Esau Diaz Guerrero	NY	Luis Ameglio
P4	2 Shahrouz Deyhim	CA	Jesse L. Meyer
P4	2 Ben Pedersen-Wedlock	CA	Rob Sporrer
P4	2 Khanh T. Tran	CA	Jeffrey J. Greenbaum
P4	2 Mark Zeleznock	CA	Jeffrey J. Greenbaum
P4	3 Ron Davis	CA	Rob Sporrer
P4	4 Charles Martin	CO	Blake Pelton
P4	4 Max Seigal	CO	Dave Turner
P4	5 Sam Sturgeon	WY	Scott C. Harris
P4	6 Chris Lee	MO	David W. Prentice
P4	6 Lindsay J. Matush	MO	David W. Prentice
P4	7 John Murphy	MI	Thomas McCormick
P4	9 Bernardo Alvarez	DC	Peter J. Van-Oevelen
P4	9 Brian Fowler	PA	Thomas McCormick

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Erika Klein

USHPA Communications Manager

I didn't even have to see a real hang glider to be hooked—a picture in a book was enough. The photo of a red hang glider high above a mountain imprinted itself on my 10-year-old mind, beginning my addiction to hang gliding years before my first leap off the top of a mountain. Now, after a decade of flying, traveling, and making friends with pilots around the country and the world, I'm looking forward to helping our national organization better connect with its members. As USHPA's new Communications Manager, my goal is not only to help everyone understand the many changes of the last few

years, but also to bring pilots and the organization closer than ever.

First, a little about me: I can't remember the first time after seeing that photo that I asked my parents if I could try hang gliding, but I know it happened often over the years. After writing a high school research paper on the history of hang gliding, years of waiting came to an end with my first tandem at Kagel Mountain in Sylmar. That first flight was everything I expected it to be (and, helpfully, showed my parents that driving back down the hill might just be more nerve-wracking than descending by hang glider).

I began training hill lessons at

Dockweiler Beach a few months later and spent most weekends of my senior year flying at the beach and learning to ridge soar. As much as I enjoy high altitudes, flying with my wingtip a few feet above a sand dune is still one of my favorite parts of hang gliding. My mom documented one of my first mountain solos in an article for this magazine. Soon after, she decided to become a hang glider pilot, too, and we've had a lot of great experiences flying together.

In the decade since then, I've gotten my H4 and earned my basic instructor rating to help more people achieve their own dream of hang gliding. I served on the Sylmar Hang Gliding



Association's Board of Directors from 2012 to 2013. You may also have seen me in the USHPA's hang gliding pre-flight safety video from 2011. I've flown sites across California and in Maryland, Virginia, Utah, Mexico, and Japan, where I also took a few paragliding lessons. One of my most memorable hang gliding flights took place at Big Sur a few years ago when I soared for over an hour, reaching 7,000 feet without a vario and earning spectacular views of the cliffs above the ocean. I recently returned from a fantastic Point of the Mountain trip with a group of Sylmar pilots, and I'm looking forward to flying many more places—and meeting you!

Over the past few years, I've seen the insurance crisis and resolution, and shared in the confusion of fellow pilots and instructors about the meaning of new policies. As events have evolved at a rapid pace, the organization has openly acknowledged that communication with members needs improvement. As USHPA's new Communications Manager, I've been tasked with making these improvements.

I'm dedicated to the future of our sports and plan to draw on my background in writing, editing, and multimedia journalism to work toward finding new and better ways to get in touch with you. I'll let you know exactly what the organization has done—and continues to do—to expand member benefits and safeguard the future of free flight. I recently earned a master's degree in journalism from the University of Southern California, where I focused on leveraging mul-

timedia tools—including text, video, audio, and social media—to best tell stories and communicate information. My previous positions also required extensive writing and the ability to translate complex ideas into clear text, both of which I'll apply to improving USHPA's communication strategies.

My goal is to help everyone understand USHPA decisions and the process behind them, giving members more of a stake in the organization that protects and facilitates the sports we love.

In the coming months and years, you can look forward to a new USHPA media strategy. I'm already planning new videos, new methods of social media engagement, and more frequent emails and newsletters to keep you informed. I'll do my best to keep these short and to the point, so that you don't have to wade through several paragraphs to get to the information that matters to you. Emails and newsletters will also be targeted to relevant groups so that, for example, new pilots don't

have to deal with a flood of information about the specifics of insurance coverage for instructors.

We'll also be increasing our social media presence on Facebook, Instagram, Twitter, and Snapchat, so be sure to follow USHPA on the platform(s) of your choice for more content designed to reconnect our pilot community, keep you updated on USHPA activities and events, let you know about new benefits for members, and answer common questions. For more in-depth questions, we'll be holding webinars on topics from site insurance to chapter risk assessment to make sure that everyone understands new policies and procedures so you can get back to the main goal: flying.

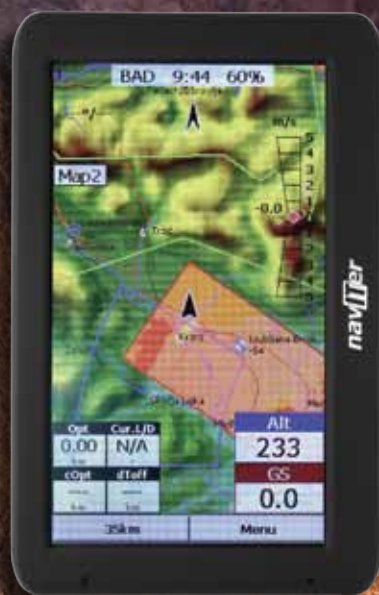
It won't be effective communication unless we're hearing from you, too, so feel free to call or email me any time at erika.klein@ushpa.org with questions, comments, or suggestions.

Hope to speak—and fly—with you soon! 🇺🇸



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